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ARTHUR JAMES BALFOUR

THE FOUNDATIONS OF BELIEF

BEING NOTES INTRODUCTORY
TO THE STUDY OF THEOLOGY

By the Right Hon. ARTHUR JAMES BALFOUR, M.P.

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From a Photograph by J. Russell & Sons.

THE RIGHT HONOURABLE ARTHUR JAMES BALFOUR.

ARTHUR JAMES BALFOUR

AS PHILOSOPHER AND THINKER

A COLLECTION OF THE MORE IMPORTANT AND
INTERESTING PASSAGES IN HIS NON-POLITICAL
WRITINGS, SPEECHES, AND ADDRESSES

1879—1912

SELECTED AND ARRANGED BY

WILFRID M. SHORT

WITH PORTRAIT

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Preface.

As the title indicates, this volume is an attempt to present in a convenient form the more important and interesting non-political views to which Mr. Balfour has given expression in his published writings, speeches, and addresses, from the year (1879) in which he published his "Defence of Philosophic Doubt," to the present year (1912).

It is worth bearing in mind not only that for nearly the whole of this period has Mr. Balfour been an active Member of Parliament, but that sixteen years of it have been spent in carrying out the duties of a Cabinet Minister. To these have been added the duties—ever-increasing—of Leader of the Unionist Party in the House of Commons for twenty consecutive years, and of Prime Minister for nearly three and a half years. The distinction of holding at one and the same time a leading position in the world of Politics and a recognised position in the world of Philosophy (Mr. Balfour would doubtless not wish it to be put higher than this) is not an everyday distinction, and a combination so exceptional must inevitably enhance, both in interest and in value, the utterances of its possessor.

It seemed, therefore, that a useful purpose might be served by recording in a single volume Mr. Balfour's views upon subjects of a non-political character, whether expressed in his published writings or in his speeches: the more so, since the majority of them possess an interest extending far beyond the moment at which they were originally expressed. It is, of course, eminently advisable for any person desirous of obtaining adequate acquaintance with them to read them in their entirety; and it may be that the attempt made in this volume is not above criticism. On the other hand, it does not pretend to do more than thin out the trees, and to indicate, with fair accuracy, the true lie of the wood. In any case, it is hoped that the volume may prove acceptable if only because no small part of its contents consists of views extracted from *speeches*, where otherwise they would remain hidden and not easy of access.

It may perhaps be thought by some that views which

deserved a place in this record have been excluded. It should be remembered, however, that the collection is not intended to reflect Mr. Balfour as a politician; and the aim has been to keep it as free as possible from views belonging to the domain of party politics.

Every effort has been made in the selections from the published writings to preserve an ordered sequence and continuity of thought and argument; but, especially in the case of such works as "Philosophic Doubt" (a volume of pure argumentative philosophy) and "Foundations of Belief," this object has not been easy of attainment. At many points the problem has been to determine, not what ought to be *included*, but what might legitimately be *excluded*. If, therefore, the reader is at first disposed to think that the connection between some of the passages is imperfect or broken, it is hoped that he will regard the defect with a lenient eye, and will bear in mind that the volume has not been compiled to give a *précis* of the author's views, but passages representing, as far as possible, their *essence*. At best, however, any such collection must be both inadequate and incomplete, for no extracts can really present all the qualities of the original.

It cannot, of course, be expected that every section in a volume dealing with so wide a variety of subjects will be of equal interest to the reader, or, indeed, that he will feel disposed to read all of them. But, unlike volumes relating to particular questions and studies, it treats of matters interesting to *all* classes of readers—to the general reader, as well as to the student and the philosopher; and each will, it is believed, find in it Sections other than those for which he may entertain a predilection, which will also appeal to him and provide him with thought for reflection.

It will be observed that the Section dealing with Science and the supposed conflict between Science and Theology runs to considerable length: and necessarily so, for no small part of "Philosophic Doubt" and "Foundations of Belief"—the volumes from which the majority of the extracts are drawn—is devoted to this absorbing question. It may be of interest to add that, within my own knowledge, the reasoning contained in this Section has completely changed the outlook of many in whom this alleged discord had created much perplexity.

It will be also noticed that in the printing of the extracts types of two sizes have been used. This course has been adopted in order clearly to differentiate between the view

expressed in writing and the view expressed orally. It will not be denied that though the view expressed orally often possesses an interest of its own, from the very fact that it *is* oral, unpremeditated, and due partly to the inspiration of the moment, yet, when seen in print, it is deprived of much which originally contributed to its success, and frequently finds in the individual responsible for it its most severe critic. Mr. Balfour himself observes in one of his volumes, that "no amount of linguistic pruning can convert a mediocre speech into a tolerable essay". It is therefore due to the author in a record framed upon the lines of the present volume, much of which consists of extracts from *speeches*, printed exactly as reported, that a distinction of this kind should be drawn.

In this connection, it is worth noting that Mr. Balfour speaks extempore, and does not write out any part, or parts, of his speeches beforehand, but either contents himself with a few rough notes, or speaks without notes at all.

Each extract is numbered, and reference to the corresponding number in the Index at the end of the volume will enable the reader to ascertain its source, and, in the case of an extract from a speech, the occasion and place of delivery of the speech. The dates printed at the end of the extracts indicate the years in which the views they contain were expressed.

I ought perhaps to add one further word. Copies of this volume will doubtless fall into the hands of many who are aware that it has been my privilege to be private secretary to Mr. Balfour for many years. The responsibility, however, for its compilation rests with myself, and beyond granting me permission to carry out the project, Mr. Balfour has not been concerned with it in any way whatever: indeed, that permission was given on the understanding that he should neither be responsible for any of the selections, nor see them before publication. I am fully conscious of the defects and shortcomings which the volume possesses, but, however many those defects and shortcomings may be, I earnestly hope that the attempt—perhaps a too ambitious attempt—to present Mr. Balfour's non-political views in a convenient and permanent form may prove not unacceptable to those who, whether in agreement or in disagreement with him upon matters political, entertain for him regard and admiration as a philosopher and thinker.

W. M. S.

September, 1912.

Note.

FOR the material for this volume I am beholden to many; but to Mr. Balfour himself, of course, is my indebtedness primarily due, for without his permission the volume could not have taken shape at all.

My thanks are also due to the following publishers for their kind courtesy in allowing me to make extracts from the volumes and pamphlets for the publication of which they were originally responsible: Messrs. Macmillan & Co., the publishers of "A Defence of Philosophic Doubt"; Messrs. Longmans, Green & Co., the publishers of "The Foundations of Belief" and "The Badminton Library of Sports and Pastimes"; Messrs. Douglas & Foulis, the publishers of "Essays and Addresses"; Messrs. P. S. King & Son, the publishers of the volume of the Proceedings of the National Conference on the Prevention of Destitution; Messrs. Williams & Norgate, the publishers of the English Edition of the Articles in "Nord und Süd," containing Mr. Balfour's Letter on Anglo-German relations; the Syndics of the Cambridge University Press, the publishers of the Addresses on "Decadence" and "The Nineteenth Century"; and the Delegates of the Clarendon Press, the publishers of the Romanes Lecture on "Beauty, and the Criticism of Beauty".

I am also indebted to (1) the Editor of the "Parliamentary Debates" for his kindness in permitting me to use extracts from the 'authorised' edition of Speeches in the House of Commons; (2) the Editor of the "National Review," for permission to quote from the Articles "Bishop Berkeley's Life and Letters" and "Politics and Political Economy"; (3) the Editor of the "Edinburgh Review," for permission to quote from the Article on "Handel"; (4) the Editor of the volume on "Golf," of the "Badminton Library of Sports and Pastimes"; (5) the Psychical Research Society, for permission to make use of Mr. Balfour's Presidential Address; (6) the Editor of the "Hibbert Journal," for permission to quote from the Article "Creative Evolution and Philosophic Doubt"; (7) the Editor of "Nord und Süd," for permission to quote the letter to him (printed as an Article in that Review) on Anglo-German relations; (8) the Secretaries of the National Conference on the Prevention of Destitution, for permission to quote from their volume of the Proceedings of the Conference; (9) the Labour Co-partnership Association, for permission to quote from their report containing Mr. Balfour's speech upon "Co-partnership"; (10) the Victoria League, for permission to use their report of Mr. Balfour's address to the League; (11) the Darwin Centenary Committee, for permission to use their report of Mr. Balfour's speech at the Centenary Celebrations; (12) the Pilgrims, for permission to quote from their report of Mr. Balfour's speech in June, 1911; and (13) the Newspaper Society, for permission to quote from their report of Mr. Balfour's speech to the Society in 1895.

Last, but not least, I owe my grateful acknowledgments to the Proprietors and Editors of the following newspapers, from which extracts have been taken: the "Times," the "Daily Telegraph," the "Standard," the "Morning Post," the "Scotsman," the "Glasgow Herald," the "Manchester Courier," the "Manchester Guardian," the "Liverpool Daily Post," the "Liverpool Courier," the "Haddingtonshire Courier," the "Hertfordshire Mercury," and the "County and City of London Observer".

Index to Sections.

	PAGE
AUTHORITY AND REASON	I
BACON	18
BEAUTY, AND THE CRITICISM OF BEAUTY	24
M. BERGSON	41
BERKELEY	55
The BIBLE	58
Robert BURNS	61
CAMBRIDGE UNIVERSITY	64
CANCER RESEARCH	66
CARLYLE	69
CHRISTIANITY	70
The CIVIL SERVICE	81
CONSUMPTION	84
CO-PARTNERSHIP	87
COPYRIGHT	92
CROMWELL	94
DARWIN	98
DECADENCE	102
"A DEFENCE OF PHILOSOPHIC DOUBT":—	
ON THE IDEA OF A PHILOSOPHY	114
EMPIRICAL LOGIC	116
INDUCTION	120
HISTORICAL INFERENCE :	123
TRANSCENDENTALISM	130
THREE ARGUMENTS FROM POPULAR PHILOSOPHY	140
THE AUTHORITY OF CONSCIOUSNESS AND OF ORIGINAL BELIEFS	143

	PAGE
PSYCHOLOGICAL IDEALISM	149
THE TEST OF INCONCEIVABILITY	153
MR. SPENCER'S PROOF OF REALISM	155
THE EVOLUTION OF BELIEF	161
SUMMARY	166
EDUCATION :—	
PUBLIC SCHOOL	173
TECHNICAL AND SCIENTIFIC	177
UNIVERSITY	187
EXAMINATIONS	197
EMPIRE	200
EUGENICS	211
FASHION	218
“THE FOUNDATIONS OF BELIEF”	221
GENIUS, AND THE PRODUCTION OF GENIUSES	265
GOLF	268
HUXLEY	280
INTERNATIONAL GOOD WILL :—	282
FRANCE	283
GERMANY	285
UNITED STATES	290
LITERATURE	297
MATTER	306
MEDICAL	313
MUSIC :—	319
HANDEL	326
NATURALISM :—	
NATURALISM AND ETHICS; NATURALISM AND ÆSTHETICS;	
NATURALISM AND REASON; RATIONALISM	339
The NINETEENTH CENTURY.	376
NOVELS	382
POLAR EXPLORATION	385
POLITICAL ECONOMY	387
POSITIVISM	396
The PRESS	406

INDEX TO SECTIONS

xi

	PAGE
PROGRESS	413
PSYCHICAL RESEARCH	424
PUBLIC-SPEAKING	433
READING	436
SCIENCE; AND SCIENCE AND THEOLOGY	447
SCOTLAND	505
SIR WALTER SCOTT	511
ROBERT LOUIS STEVENSON	514
TRIBUTES TO:—	
HER MAJESTY QUEEN VICTORIA	515
HIS MAJESTY KING EDWARD THE SEVENTH	519
THE RIGHT HON. WILLIAM EWART GLADSTONE	523
THE MARQUIS OF SALISBURY	528
THE DUKE OF DEVONSHIRE	533
MISCELLANEOUS:—	
ATHLETICS	535
CYCLING	537
EXPERTS	537
MATRIMONY	539
NATIONALITY	539
PICTURE GALLERIES	541
HOMES FOR YOUTHS IN INDUSTRIAL CENTRES	542

[SEE NEXT PAGE FOR "SUB-INDEX".]

Sub=Index.

[Further subjects referred to in the foregoing Sections. The titles of the Sections are printed in *italics*.]

- Arbitration (*International Good Will*).
- Aristotle (*Naturalism*).
- Art Critics (*Beauty, and the Criticism of Beauty*).
- The Atonement ("Foundations of Belief").
- Bach (*Handel*).
- Birth-rate (*Eugenics*).
- Christian Unity (*Christianity*).
- Cricket (*Golf*).
- The Dead Languages (*Education, public school*).
- Destitution (*Eugenics*).
- Determinism (*M. Bergson*; "Foundations of Belief"; *Naturalism*; *Science and Theology*).
- Divine Power, preferential exercise of (*Science and Theology*).
- Doctors (*Medical*).
- Edinburgh (*Scotland*).
- Electricity (*Matter*).
- Evolution ("Philosophic Doubt").
- "First Principles" ("Philosophic Doubt").
- Freethinkers (*Science and Theology*).
- Free Will (*Science and Theology*).
- Golf Caddies (*Golf*).
- The "Great Rebellion" (*Authority and Reason*; *Cromwell*).
- Sir William Hamilton and his "Dissertation" ("Philosophic Doubt").
- Hertz (*Psychical Research*).
- History, study of (*Reading*).
- Hume ("Philosophic Doubt"; *Naturalism*).
- The Incarnation (*Science and Theology*).
- Inspiration (*Science and Theology*).
- Kant ("Foundations of Belief"; *Naturalism*).
- Lord Kelvin (*Education, technical and scientific*).
- Locke (*Naturalism*).
- Mesmerism (*Psychical Research*).
- John Stuart Mill ("Philosophic Doubt").
- Miracles ("Foundations of Belief"; *Science and Theology*).
- The Moral Law (*Authority and Reason*; "Foundations of Belief"; *Naturalism*).
- Newton (*Darwin*; *Education, technical and scientific*).
- Natural Religion (*Naturalism*; *Science and Theology*).
- Oratorio (*Handel*).
- Original Research (*Education*).
- Papal Infallibility (*Authority and Reason*).
- Parliamentary Draftsman (*Civil Service*).
- Pasteur (*Education, technical and scientific*).
- Plato (*Naturalism*).
- Post-graduate Education (*Education, university*).
- "Problem of Evil" (*Positivism*; *Science and Theology*).
- "Reasonable Self-love" (*Naturalism*; *Positivism*).
- The "Religion of Humanity" (*Positivism*).
- Reporters (*The Press*).
- Revealed Religion (*Naturalism*; *Science and Theology*).
- Roman Empire, causes of decline of (*Decadence*).
- Sanatoria (*Consumption*).
- Scottish Churches, union of (*Christianity*).
- Herbert Spencer ("Philosophic Doubt"; *Eugenics*; *Science and Theology*).
- Leslie Stephen ("Philosophic Doubt"; *Science and Theology*).
- "Superficiality" (*Education, technical and scientific*).
- Telepathy (*Psychical Research*).
- Theism (*Naturalism*; *Science and Theology*).
- The Trinity ("Foundations of Belief").
- Tropical Education (*Education, technical and scientific*).
- Tributes to
 - The Earl of Derby (*Literature*).
 - Professor S. H. Butcher (*Scotland*).

Authority and Reason.

[*The extracts under this heading are taken from "The Foundations of Belief," published in 1895.*]

[In a footnote to the section of "Foundations of Belief" (first edition) from which the passages under this heading are taken, the author states that he uses 'Reason' "in its ordinary and popular, not in its transcendental sense," and that there is "no question here of the Logos or Absolute Reason". His use both of this word and of the word 'Authority' gave rise to criticism, and to the cheap and enlarged edition of the work was therefore added the following note:—

1. Much criticism has been directed against the use to which the word 'Authority' has been put in this chapter. And there can be no doubt that a terminology which draws so sharp a distinction between phrases so nearly identical as 'authority' and 'an authority' must be open to objection.

Yet it still seems to me difficult to find a more suitable expression. There is no word in the English language which describes what I want to describe, and yet describes nothing else. Every alternative term seems at least as much open to misconception as the one I have employed, and I do not observe that those who have most severely criticised it have suggested an unobjectionable substitute. Professor Pringle Pattison (Seth), in a most interesting and sympathetic review of this work, goes the length of saying that my use of the word is a 'complete departure from ordinary usage'. But I can hardly think that this is so. However else the word may be employed in common parlance, it is surely often employed exactly as it is in this chapter—namely, to describe those causes of belief which are not reasons and yet are due to the influence of mind on mind. Parental influence is typical of the species: and it would certainly be in conformity with accepted usage to describe this as 'Authority'. A child does not accept its mother's teaching because it regards its mother as 'an authority' whom it is reasonable to believe. The process is one of non-rational (not *irrational*) causation. Again, I do not think it would be regarded as forced to talk of the 'authority of public opinion' or the 'authority of custom' exactly with the meaning which such expression would bear in the preceding chapter. 'He submitted to the *authority* of a stronger will.' 'He never asked on

what basis the claims of his Church rested ; he simply bowed, as from his childhood he had always bowed, to her unchallenged *authority*. 'No doubts were ever entertained, no inconvenient questions were ever asked, about the propriety of a practice which was enforced by the *authority* of unbroken custom.' I think it will be admitted that in all these examples the word 'authority' is used in the sense I have attributed to it, that this sense is a natural sense, and that no other single word could advantageously be substituted for it. If so, the reasons for its employment seem not inadequate.

I feel on even stronger ground in replying to the criticisms passed on my use here of the word 'reason'. Professor Pattison, though he does not like it, admits that it is in accordance with the practice of the older English thinkers. I submit that it is also in accordance with the usage prevalent in ordinary discourse. But I go further and say that I am employing the word in the sense in which it is always employed when 'reason' is contrasted with 'authority'. If a man boasts that all his opinions have been arrived at by 'following reason,' he is referring not to the Universal Reason or Logos but to his own faculty of discursive reason : and what he wishes the world to understand is that his beliefs are based on reasoning, not on authority or prejudice. Now this is the very individual whom I had in my mind when writing this chapter : and if I had been debarred from using the words 'reason' and 'reasoning' in their ordinary everyday meaning, I really do not see in what language I could have addressed myself to him at all.]

2. It would be, perhaps, an exaggeration to assert that the theory of Authority has been for three centuries the main battlefield whereon have met the opposing forces of new thoughts and old. But if so, it is only because, at this point at least, victory is commonly supposed long ago to have declared itself decisively in favour of the new. The very statement that the rival and opponent of authority is reason seems to most persons equivalent to a declaration that the latter must be in the right, and the former in the wrong ; while popular discussion and speculation have driven deep the general opinion that authority serves no other purpose in the economy of Nature than to supply a refuge for all that is most bigoted and absurd.

The current theory by which these views are supported appears to be something of this kind. Every one has a 'right' to adopt any opinions he pleases. It is his 'duty,' before exercising this 'right,' critically to sift the reasons by which such opinions may be supported, and so to adjust the degree of his convictions that they shall

accurately correspond with the evidences adduced in their favour. Authority, therefore, has no place among the legitimate causes of belief. If it appears among them, it is as an intruder, to be jealously hunted down and mercilessly expelled. Reason, and reason only, can be safely permitted to mould the convictions of mankind. By its inward counsels alone should beings who boast that they are rational submit to be controlled.

Sentiments like these are among the commonplaces of political and social philosophy. Yet, looked at scientifically, they seem to me to be not merely erroneous, but absurd. Suppose for a moment a community of which each member should deliberately set himself to the task of throwing off so far as possible all prejudices due to education ; where each should consider it his duty critically to examine the grounds whereon rest every positive enactment and every moral precept which he has been accustomed to obey ; to dissect all the great loyalties which make social life possible, and all the minor conventions which help to make it easy ; and to weigh out with scrupulous precision the exact degree of assent which in each particular case the results of this process might seem to justify. To say that such a community, if it acted upon the opinions thus arrived at, would stand but a poor chance in the struggle for existence is to say far too little. It could never even begin to be ; and if by a miracle it was created, it would without doubt immediately resolve itself into its constituent elements.

For consider by way of illustration the case of Morality. If the right and the duty of private judgment be universal, it must be both the privilege and the business of every man to subject the maxims of current morality to a critical examination ; and unless the examination is to be a farce, every man should bring to it a mind as little warped as possible by habit and education, or the unconscious bias of foregone conclusions. Picture, then, the condition of a society in which the successive generations would thus in turn devote their energies to an impartial criticism of the 'traditional' view. What qualifications, natural or acquired, for such a task we are to attribute to the members of this emancipated community I know not. But let us put them at the highest. Let us suppose that every man and woman, or rather every boy and girl (for ought Reason to be ousted from her rights in persons under twenty-one years of age ?), is endowed with the aptitude and training required to deal with problems like these. Arm them with the most recent methods of criticism, and set them down to the task of estimating with open minds the claims which

charity, temperance and honesty, murder, theft and adultery respectively have upon the approval or disapproval of mankind. What the result of such an experiment would be, what wild chaos of opinions would result from this fiat of the Uncreating Word, I know not. But it might well happen that even before our youthful critics got so far as a rearrangement of the Ten Commandments, they might find themselves entangled in the preliminary question whether judgments conveying moral approbation and disapprobation were of a kind which reasonable beings should be asked to entertain at all ; whether 'right' and 'wrong' were words representing anything more permanent and important than certain likes and dislikes which happen to be rather widely disseminated, and more or less arbitrarily associated with social and legal sanctions. I conceive it to be highly probable that the conclusions at which on this point they would arrive would be of a purely negative character. The ethical systems competing for acceptance would by their very numbers and variety suggest suspicions as to their character and origin. Here, would our students explain, is a clear presumption to be found on the very face of these moralisings that they were contrived, not in the interests of truth, but in the interests of traditional dogma. How else explain the fact that while there is no great difference of opinion as to what things are right or wrong, there is no semblance of agreement as to why they are right or why they are wrong.

3. The framers of ethical systems are either philosophers who are unable to free themselves from the unfelt bondage of customary opinion, or advocates who find it safer to exercise their liberty of speculation in respect to premises about which nobody cares, than in respect to conclusions which might bring them into conflict with the police.

4. I have already indicated some of the grounds which induce me to form a very different estimate of the part which reason plays in human affairs. Our ancestors, whose errors we palliate on account of their environment with a feeling of satisfaction, due partly to our keen appreciation of our own happier position and greater breadth of view, were not to be pitied because they reasoned little and believed much ; nor should we necessarily have any particular cause for self-gratulation if it were true that we reasoned more and, it may be, believed less. Not

thus has the world been fashioned. But, nevertheless, this identification of reason with all that is good among the causes of belief, and authority with all that is bad, is a delusion so gross, and yet so prevalent, that a moment's examination into the exaggerations and confusions which lie at the root of it may not be thrown away.

5. Though it be true, as I am contending, that the importance of reason among the causes which produce and maintain the beliefs, customs, and ideals which form the groundwork of life has been much exaggerated, there can yet be no doubt that reason is, or appears to be, the cause over which we have the most direct control, or rather the one which we most readily identify with our own free and personal action. We are acted on by authority. It moulds our ways of thought in spite of ourselves, and usually unknown to ourselves. But when we reason we are the authors of the effect produced. We have ourselves set the machine in motion. For its proper working we are ourselves immediately responsible; so that it is both natural and desirable that we should concentrate our attention on this particular class of causes, even though we should thus be led unduly to magnify their importance in the general scheme of things.

I have somewhere seen it stated that the steam-engine in its primitive form required a boy to work the valve by which steam was admitted to the cylinder. It was his business at the proper period of each stroke to perform this necessary operation by pulling a string; and though the same object has long since been attained by mechanical methods far simpler and more trustworthy, yet I have little doubt that until the advent of that revolutionary youth who so tied the string to one of the moving parts of the engine that his personal supervision was no longer necessary, the boy in office greatly magnified his functions, and regarded himself with pardonable pride as the most important, because the only rational, link in the chain of causes and effects by which the energy developed in the furnace was ultimately converted into the motion of the fly-wheel. So do we stand as reasoning beings in the presence of the complex processes, physiological and psychical, out of which are manufactured the convictions necessary to the conduct of life. To the results attained by their co-operation reason makes its slender contribution; but in order that it may do so effectively, it is benefi-

cently decreed that, pending the evolution of some better device, reason should appear to the reasoner the most admirable and important contrivance in the whole mechanism.

The manner in which attention and interest are thus unduly directed towards the operations, vital and social, which are under our direct control, rather than those which we are unable to modify, or can only modify by a very indirect and circuitous procedure, may be illustrated by countless examples. Take one from physiology. Of all the complex causes which co-operate for the healthy nourishment of the body, no doubt the conscious choice of the most wholesome rather than the less wholesome forms of ordinary food is far from being the least important. Yet, as it is within our immediate competence, we attend to it, moralise about it, and generally make much of it. But no man can by taking thought directly regulate his digestive secretions. We never, therefore, think of them at all until they go wrong, and then, unfortunately, to very little purpose. So it is with the body politic. A certain proportion (probably a small one) of the changes and adaptations required by altered surroundings can only be effected through the solvent action of criticism and discussion. How such discussion shall be conducted, what are the arguments on either side, how a decision shall be arrived at, and how it shall be carried out, are matters which we seem able to regulate by conscious effort and the deliberate adaptation of means to ends. We therefore unduly magnify the part they play in the furtherance of our interests. We perceive that they supply business to the practical politician, raw material to the political theorist; and we forget amid the buzzing of debate the multitude of incomparably more important processes, by whose undesigned co-operation alone the life and growth of the State are rendered possible.

6. The power of authority is never more subtle and effective than when it produces a psychological 'atmosphere' or 'climate' favourable to the life of certain modes of belief, unfavourable, and even fatal, to the life of others. Such 'climates' may be widely diffused, or the reverse. Their range may cover a generation, an epoch, a whole civilisation, or it may be narrowed down to a sect, a family, even an individual. And as they may vary infinitely in respect to the extent of their influence, so also they may vary in respect to its intensity and quality. But whatever be their limits

and whatever their character, their importance to the conduct of life, social and individual, cannot easily be overstated.

Consider, for instance, their effect on great classes of belief with which reasoning, were it only on account of their mass, is quite incompetent to deal. If all credible propositions, all propositions which somebody at some time had been able to believe, were only to be rejected after their claims had been impartially tested by a strictly logical investigation, the intellectual machine would be overburdened, and its movements hopelessly choked by mere excess of material.

7. Few indeed are the beliefs, even among those which come under his observation, which any individual for a moment thinks himself called upon seriously to consider with a view to their possible adoption. The residue he summarily disposes of, rejects without a hearing, or rather treats as if they had not even that *prima facie* claim to be adjudicated on which formal rejection seems to imply.

Now, can this process be described as a rational one? That it is not the immediate result of reasoning is, I think, evident enough. All would admit, for example, that when the mind is closed against the reception of any truth by 'bigotry' or 'inveterate prejudice,' the effectual cause of the victory of error is not so much bad reasoning as something which, in its essential nature, is not reasoning at all. But there is really no ground for drawing a distinction as regards their mode of operation between the 'psychological climates' which we happen to like and those of which we happen to disapprove. However various their character, all, I take it, work out their results very much in the same kind of way. For good or for evil, in ancient times and in modern, among savage folk and among civilised, it is ever by an identic process that they have sifted and selected the candidates for credence, on which reason has been afterwards called upon to pass judgment; and that process is one with which ratiocination has little or nothing directly to do.

But though these 'psychological climates' do not work through reasoning, may they not themselves, in many cases, be the products of reasoning? May they not, therefore, be causes of belief which belong, though it be only at the second remove, to the domain of reason rather than that of authority? To the first of these questions the answer must doubtless be in the affirmative. Reasoning has

unquestionably a great deal to do with the production of psychological climates. As 'climates' are among the causes which produce beliefs, so are beliefs among the causes which produce 'climates,' and all reasoning, therefore, which culminates in belief may be, and indeed must be, at least indirectly concerned in the effects which belief develops. But are these results rational? Do they follow, I mean, on reason *quâ* reason; or are they, like a school-boy's tears over a proposition of Euclid, consequences of reasoning, but not conclusions from it?

8. Natural science and historical criticism have not been built up without a vast expenditure of reasoning, and (though for present purposes this is immaterial) very good reasoning, too. But are we on that account to say that the results of the rationalising temper are the work of reason? Surely not. The rationalist rejects miracles; and if you force him to a discussion, he may no doubt produce from the ample stores of past controversy plenty of argument in support of his belief. But do not therefore assume that his belief is the result of his argument. The odds are strongly in favour of argument and belief having both grown up under the fostering influence of his 'psychological climate'. For observe that precisely in the way in which he rejects miracles he also rejects witchcraft. Here there has been no controversy worth mentioning. The general belief in witchcraft has died a natural death, and it has not been worth anybody's while to devise arguments against it. Perhaps there are none. But, whether there be or not, no logical axe was required to cut down a plant which had not the least chance of flourishing in a mental atmosphere so rigorous and uncongenial as that of rationalism; and accordingly no logical axe has been provided.

The belief in mesmerism, however, supplies in some ways a more instructive case than the belief either in miracles or witchcraft. Like these, it found in rationalism a hostile influence. But, unlike these, it could call in almost at will the assistance of what would now be regarded as ocular demonstration. For two generations, however, this was found insufficient. For two generations the rationalistic bias proved sufficiently strong to pervert the judgment of the most distinguished observers, and to incapacitate them from accepting what under more favourable circumstances they would have called the 'plain evidence of their senses'. So that we are

here presented with the curious spectacle of an intellectual mood or temper, whose origin was largely due to the growth of the experimental sciences, making it impossible for those affected to draw the simplest inference, even from the most conclusive experiments.

This is an interesting case of the conflict between authority and reason, because it illustrates the general truth for which I have been contending, with an emphasis that would be impossible if we took as our example some worn-out vesture of thought, threadbare from use, and strange to eyes accustomed to newer fashions.

9. The only results which reason can claim as hers by an exclusive title are of the nature of logical conclusions; and rationalism, in the sense in which I am now using the word, is not a logical conclusion, but an intellectual temper. The only instruments which reason, as such, can employ are arguments; and rationalism is not an argument, but an impulse towards belief, or disbelief. So that, though rationalism, like other 'psychological climates,' is doubtless due, among other causes, to reason, it is not on that account a rational product; and though in its turn it produces beliefs it is not on that account a rational cause.

10. No one finds (if my observations in this matter are correct) any serious difficulty in attributing the origin of other people's beliefs, especially if he disagree with them, to causes which are not reasons. That interior assent should be produced in countless cases by custom, education, public opinion, the contagious convictions of countrymen, family, party, or Church, seems natural, and even obvious. That but a small number, at least of the most important and fundamental beliefs, are held by persons who could give reasons for them, and that of this small number only an inconsiderable fraction are held in consequence of the reasons by which they are nominally supported, may perhaps be admitted with no very great difficulty. But it is harder to recognise that this law is not merely, on the whole, beneficial, but that without it the business of the world could not possibly be carried on; nor do we allow, without reluctance and a sense of shortcoming, that in our own persons we supply illustrations of its operation quite as striking as any presented to us by the rest of the world.

Now this reluctance is not the result of vanity, nor of any

fancied immunity from weaknesses common to the rest of mankind. It is, rather, a direct consequence of the view we find ourselves compelled to take of the essential character of reason and of our relations to it. Looked at from the outside, as one among the complex conditions which produce belief, reason appears relatively insignificant and ineffectual ; not only appears so, but *must* be so, if human society is to be made possible. Looked at from the inside, it claims by an inalienable title to be supreme. Measured by its results it may be little ; measured by its rights it is everything. There is no problem it may not investigate, no belief which it may not assail, no principle which it may not test. It cannot, even by its own voluntary act, deprive itself of universal jurisdiction, as, according to a once fashionable theory, primitive man, on entering the social state, contracted himself out of his natural rights and liberties. On the contrary, though its claims may be ignored, they cannot be repudiated ; and even those who shrink from the criticism of dogma as a sin, would probably admit that they do so because it is an act forbidden by those they are bound to obey ; do so, that is to say, nominally at least, for a reason which, at any moment, if it should think fit, reason itself may reverse.

11. It is true, no doubt, that the full extent and difficulty of the problems involved have not commonly been realised by the advocates either of authority or reason, though each has usually had a sufficient sense of the strength of the other's position to induce him to borrow from it, even at the cost of some little inconsistency. The supporter of authority, for instance, may point out some of the more obvious evils by which any decrease in its influence is usually accompanied : the comminution of sects, the divisions of opinion, the weakened powers of co-operation, the increase of strife, the waste of power. Yet, so far as I am aware, no nation, party, or church has ever courted controversial disaster by admitting that, if its claims were impartially tried at the bar of Reason, the verdict would go against it. In the same way, those who have most clamorously upheld the prerogatives of individual reason have always been forced to recognise by their practice, if not by their theory, that the right of every man to judge on every question for himself is like the right of every man who possesses a balance at his bankers, to require its immediate payment in sovereigns. The right may be undoubted ; but it can only be safely enjoyed on condition

that too many persons do not take it into their heads to exercise it together. Perhaps, however, the most striking evidence, both of the powers of authority and the rights of reason, may be found in the fact already alluded to, that beliefs which are really the offspring of the first, when challenged, invariably claim to trace their descent from the second, although this improvised pedigree may be as imaginary as if it were the work of a college of heralds. To be sure, when this contrivance has served its purpose it is usually laid silently aside, while the belief it was intended to support remains quietly in possession, until, in the course of time, some other, and perhaps not less illusory, title has to be devised to rebut the pleas of a new claimant.

If the reader desires an illustration of this procedure, here is one taken at random from English political history. Among the results of the movement which culminated in the Great Rebellion was of necessity a marked diminution in the universality and efficacy of that mixture of feelings and beliefs which constitutes loyalty to national government. Now loyalty, in some shape or other, is necessary for the stability of any form of polity. It is one of the most valuable products of authority, and, whether in any particular case conformable to reason or not, is essentially unreasoning. Its theoretical basis therefore excites but little interest, and is of very subordinate importance so long as it controls the hearts of men with undisputed sway. But as soon as its supremacy is challenged, men begin to cast about anxiously for reasons why it should continue to be obeyed.

Thus, to some of those who lived through the troubles which preceded and accompanied the Great Rebellion, it became suddenly apparent that it was above all things necessary to bolster up by argument the creed which authority had been found temporarily insufficient to sustain; and of the arguments thus called into existence two, both of extraordinary absurdity, have become historically famous—that contained in Hobbes's 'Leviathan,' and that taught for a period with much vigour by the Anglican clergy under the name of Divine right. These theories may have done their work; in any case they had their day. It was discovered that, as is the way of abstract arguments dragged in to meet a concrete difficulty, they led logically to a great many conclusions much less convenient than the one in whose defence they had been originally invoked. The crisis which called them forth passed gradually away. They were repugnant to the taste of a different age; 'Leviathan' and

'passive obedience' were handed over to the judgment of the historian.

This is an example of how an ancient principle, broadly based though it be on the needs and feelings of human nature, may be thought now and again to require external support to enable it to meet some special stress of circumstances. But often the stress is found to be brief; a few internal alterations meet all the necessities of the case; to a new generation the added buttresses seem useless and unsightly. They are soon demolished, to make way in due time, no doubt, for others as temporary as themselves. Nothing so quickly waxes old as apologetics, unless, perhaps, it be criticism.

12. Authority, as I have been using the term, is in all cases contrasted with Reason, and stands for that group of non-rational causes, moral, social, and educational, which produces its results by psychic processes other than reasoning. But there is a simple operation, a mere turn of phrase, by which many of these non-rational causes can, so to speak, be converted into reasons without seeming at first sight thereby to change their function as channels of Authority; and so convenient is this method of bringing these two sources of conviction on to the same plane, so perfectly does it minister to our instinctive desire to produce a reason for every challenged belief, that it is constantly resorted to (without apparently any clear idea of its real import), both by those who regard themselves as upholders and those who regard themselves as opponents of Authority in matters of opinion. To say that I believe a statement because I have been taught it, or because my father believed it before me, or because everybody in the village believes it, is to announce what everyday experience informs us is a quite adequate *cause* of belief—it is not, however, *per se*, to give a *reason* for belief at all. But such statements can be turned at once into reasons by no process more elaborate than that of explicitly recognising that my teachers, my family, or my neighbours, are truthful persons, happy in the possession of adequate means of information—propositions which in their turn, of course, require argumentative support. Such a procedure may, I need hardly say, be quite legitimate; and reasons of this kind are probably the principal ground on which in mature life we accept the great mass of our subordinate scientific and historical convictions. I believe, for instance, that the moon falls in towards the earth with

the exact velocity required by the force of gravitation, for no other reason than that I believe in the competence and trustworthiness of the persons who have made the necessary calculations. In this case the reason for my belief and the immediate cause of it are identical ; the cause, indeed, is a cause only in virtue of its being first a reason. But in the former case this is not so. *Mere* early training, paternal authority, and public opinion, were causes of belief before they were reasons ; they continued to act as non-rational causes after they became reasons ; and it is not improbable that to the very end they contributed less to the resultant conviction in their capacity as reasons than they did in their capacity as non-rational causes.

Now the temptation thus to convert causes into reasons seems under certain circumstances to be almost irresistible, even when it is illegitimate. Authority, as such, is from the nature of the case dumb in the presence of argument. It is only by reasoning that reasoning can be answered. It can be, and has often been, thrust silently aside by that instinctive feeling of repulsion which we call prejudice when we happen to disagree with it. But it can only be replied to by its own kind. And so it comes about that whenever any system of belief is seriously questioned, a method of defence which is almost certain to find favour is to select one of the causes by which the belief has been produced, and forthwith to erect it into a reason why the system should continue to be accepted. Authority, as I have been using the term, is thus converted into 'an authority' or into 'authorities'. It ceases to be the opposite or correlative of reason. It can no longer be contrasted with reason. It becomes a species of reason, and as a species of reason it must be judged.

13. As to the reality of an infallible guide, in whatever shape this has been accepted by various sections of Christians, I have not a word to say. As part of a creed it is quite outside the scope of my inquiry. I have to do with it only if, and in so far as, it is represented, not as part of the thing to be believed, but as one of the fundamental reasons for believing it ; and in that position I think it inadmissible.

Merely as an illustration, then, let us consider for a moment the particular case of Papal Infallibility, an example which may be regarded with the greater impartiality as I am not, I suppose, likely to

have among the readers of these Notes many by whom it is accepted. If I rightly understand the teaching of the Roman Catholic theologians upon this subject, the following propositions, at *least*, must be accepted before the doctrine of Infallibility can be regarded as satisfactorily proved or adequately held : (1) That the words, "Thou art Peter, and upon this rock," etc., and, again, "Feed My sheep," were uttered by Christ ; and that, being so uttered, were of Divine authorship, and cannot fail : (2) That the meaning of these words is—(a) that St. Peter, was endowed with a primacy of jurisdiction over the other Apostles ; (b) that he was to have a perpetual line of successors, similarly endowed with a primacy of jurisdiction ; (c) that these successors were to be Bishops of Rome ; (d) that the primacy of jurisdiction carries with it the certainty of Divine 'assistance' ; (e) that though this 'assistance' does not ensure either the morality, or the wisdom, or the general accuracy of the Pontiff to whom it is given, it does ensure his absolute inerrancy whenever he shall, *ex cathedrâ*, define a doctrine of faith or morals ; (f) that no pronouncement can be regarded as *ex cathedrâ* unless it relates to some matter already thoroughly sifted and considered by competent divines.

Now it is no part of my business to ask how the six sub-heads constituting the second of these contentions can by any legitimate process of exegesis be extracted from the texts mentioned in the first ; nor how, if they be accepted to the full, they can obviate the necessity for the complicated exercise of private judgment required to determine whether any particular decision has or has not been made under the conditions necessary to constitute it a pronouncement *ex cathedrâ*. These are questions to be discussed between Roman Catholic and non-Roman Catholic controversialists, and with them I have nothing here to do. My point is, that the first proposition alone is so absolutely subversive of any purely naturalistic view of the universe, involves so many fundamental elements of Christianity (e.g. the supernatural character of Christ and the trustworthiness of the first and fourth Gospels, with all that this carries with it), that if it does not require the argument from an infallible authority for its support, it seems hard to understand where the necessity for that argument can come in at any fundamental stage of apologetic demonstration. And that this proposition does not require infallible authority for its support seems plain from the fact that it does itself supply the main ground on which the existence of infallible authority is believed.

This is not, and is not intended to be, an objection to the doc-

trine of Papal Infallibility ; it is not, and is not intended to be, a criticism by means of example directed against other doctrines involving the existence of an unerring guide. But if the reader will attentively consider the matter he will, I think, see that whatever be the truth or the value of such doctrines, they can never be used to supply any fundamental support to the systems of which they form a part without being open to a reply like that which I have supposed in the case of Papal Infallibility. Indeed, when we reflect upon the character of the religious books and of the religious organisations through which Christianity has been built up ; when we consider the variety in date, in occasion, in authorship, in context, in spiritual development, which mark the first ; the stormy history and the inevitable division which mark the second ; when we, further, reflect on the astonishing number of the problems, linguistic, critical, metaphysical, and historical, which must be settled, at least in some preliminary fashion, before either the books or the organisations can be supposed entitled by right of rational proof to the position of infallible guides, we can hardly suppose that we were intended to find in these the *logical* foundations of our system of religious beliefs, however important be the part (and can it be exaggerated ?) which they were destined to play in producing, fostering, and directing it.

14. To Reason is largely due the growth of new and the sifting of old knowledge ; the ordering, and in part the discovery, of that vast body of systematised conclusions which constitute so large a portion of scientific, philosophical, ethical, political, and theological learning. To Reason we are in some measure beholden, though not, perhaps, so much as we suppose, for hourly aid in managing so much of the trifling portion of our personal affairs entrusted to our care by Nature as we do not happen to have already surrendered to the control of habit. By Reason also is directed, or misdirected, the public policy of communities within the narrow limits of deviation permitted by accepted custom and tradition. Of its immense indirect consequences, of the part it has played in the evolution of human affairs by the disintegration of ancient creeds, by the alteration of the external conditions of human life, by the production of new moods of thought, or, as I have termed them, psychological climates, we can in this connection say nothing. For these are no rational effects of reason ; the causal nexus by which they are bound to reason has no logical aspect ; and if reason produces them, as in part it certainly

does, it is in a manner indistinguishable from that in which similar consequences are blindly produced by the distribution of continent and ocean, the varying fertility of different regions, and the other material surroundings by which the destinies of the race are modified.

When we turn, however, from the conscious work of Reason to that which is unconsciously performed for us by Authority, a very different spectacle arrests our attention. The effects of the first, prominent as they are through the dignity of their origin, are trifling compared with the all-pervading influences which flow from the second. At every moment of our lives, as individuals, as members of a family, of a party, of a nation, of a Church, of a universal brotherhood, the silent, continuous, unnoticed influence of Authority moulds our feelings, our aspirations, and, what we are more immediately concerned with, our beliefs. It is from Authority that Reason itself draws its most important premises. It is in unloosing or directing the forces of Authority that its most important conclusions find their principal function. And even in those cases where we may most truly say that our beliefs are the rational product of strictly intellectual processes, we have, in all probability, only got to trace back the thread of our inferences to its beginnings in order to perceive that it finally loses itself in some general principle which, describe it as we may, is in fact due to no more defensible origin than the influence of Authority.

Nor is the comparative pettiness of the rôle thus played by reasoning in human affairs a matter for regret. Not merely because we are ignorant of the data required for the solution, even of very simple problems in organic and social life, are we called on to acquiesce in an arrangement which, to be sure, we have no power to disturb; nor yet because these data, did we possess them, are too complex to be dealt with by any rational calculus we possess or are ever likely to acquire; but because, in addition to these difficulties, reasoning is a force most apt to divide and disintegrate; and though division and disintegration may often be the necessary preliminaries of social development, still more necessary are the forces which bind and stiffen, without which there would be no society to develop.

It is true, no doubt, that we can, without any great expenditure of research, accumulate instances in which Authority has perpetuated error and retarded progress, for, unluckily, none of the influences, Reason least of all, by which the history of the race has been moulded have been productive of unmingled good. The springs at which we quench our thirst are always turbid. Yet, if we are to

judge with equity between these rival claimants, we must not forget that it is Authority rather than Reason to which, in the main, we owe, not religion only, but ethics and politics ; that it is Authority which supplies us with essential elements in the premises of science ; that it is Authority rather than Reason which lays deep the foundations of social life ; that it is Authority rather than Reason which cements its superstructure. And though it may seem to savour of paradox, it is yet no exaggeration to say, that if we would find the quality in which we most notably excel the brute creation, we should look for it, not so much in our faculty of convincing and being convinced by the exercise of reasoning, as in our capacity for influencing and being influenced through the action of Authority.

Bacon.¹

15. From the very moment at which I rashly undertook to take a leading part in this ceremony I have been occupied in repenting my own temerity. For, indeed, the task which the members of this Society have thrown upon me is one which I feel very ill qualified to perform ; one, indeed, which has some aspects with which many present here to-day are far more fitted to deal than I.

For the great man whose introduction into Gray's Inn some three hundred years ago we have met to commemorate was a member of this Society through his whole adult life. Here he lived most of his days before he rose to the highest legal position in the country ; here, after his fall, he returned again to his old friends and dwelt again among his earlier surroundings. It was to this Inn that he gave some of his most loving work, adorning it, regulating it, and taking a large share both in its pleasures and its business. It would seem, therefore, to be fitting that the man who unveils the Memorial of this great member of Gray's Inn should himself be a member of Gray's Inn, and that a man who speaks in praise of a Lord Chancellor should himself know something of the law.

I possess, alas ! neither qualification. But I am told by those who are more competent to form a judgment on the subject than I am that Bacon showed, as we might expect, great mastery of legal principles, and that although he did not equal in learning that eminently disagreeable personage, Sir Edward Coke, his great rival, yet that his views upon law reform were far in advance of his time, and, according to some authorities, had even an effect upon that masterpiece of codification, the *Code Napoléon*.

However this may be, I clearly have no title to say, and do not mean to say, a single word of my own upon Bacon as a lawyer. Upon Bacon as a politician it would not be difficult, and it might be interesting, to dilate. Although I think he lacked that personal force which is a necessary element in the equipment of every successful politician, he yet possessed a breadth of view, a moderation of spirit, which, had his advice been taken, might have altered the history of this country and even of Europe. It

¹ The report of this speech (delivered at the unveiling of the memorial in the gardens of Gray's Inn, June 27, 1912) was subsequently corrected and revised by Mr. Balfour for the archives of the Honourable Society of Gray's Inn, and it is here printed in its revised form.

might be an attractive task for those who like drawing imaginary pictures of the historical 'might-have-been,' to conceive a man of Bacon's insight inspiring the policy of a Sovereign who had the power and the wish to act upon his advice. Had such a combination existed at the beginning of the seventeenth century we might well have seen a development of Parliamentary and constitutional institutions effected at a less cost than civil war; and all the bitterness of political and religious strife, which so greatly hindered our progress at home, and so effectually destroyed our influence abroad, might happily have been avoided.

But all this is a dream—a dream that could never have come true under a sovereign like James the First. Am I then to turn from the part which under happier circumstances Bacon might have played in public affairs, and discuss the part which in fact he did play? I confess that the subject does not attract me. Anybody who goes to the study of Bacon's life, remembering how his fame has been darkened by the satire of Pope and the rhetoric of Macaulay, must naturally desire to find that these great writers have grossly exaggerated the shadows upon their hero's character. And, indeed, they have exaggerated. Bacon was not a bad man. He was not a cruel man. I believe he loved justice. I am sure he loved good government. And yet, though all this be true, I do not think his admirers can draw much satisfaction from any impartial survey of his relations either with his family, his friends, his political associates or his political rivals. Much worse men than Bacon have had more interesting characters. They may have committed crimes, both in public and in private life, from which Bacon would have shrunk in horror. We condemn them, but we are interested in them. I do not think we ever feel this about Bacon the politician. Neither his relations with Essex, nor with Salisbury, nor with Buckingham, nor with Queen Elizabeth, nor with James the First, put him, however we look at the matter, in a very attractive light. He had not a high courage. I doubt his capacity for uncalculating generosity. I could have wished him a little more pride. I suspect, indeed, that his deficiencies in these respects militated even against his worldly fortunes. Such men are used in public life, but they are not greatly loved nor greatly trusted.

But do not let us talk of Bacon as though his career were a great tragedy. It was nothing of the sort. He was a successful man, tried by any worldly standard you choose. He was a philosopher, and he was a statesman; and in the age in which he lived there were no two professions which promised the certainty of a more uneasy life or the chance of a more disagreeable death. His first patron, Essex, died on the scaffold. His second patron, Buckingham, was stabbed by Felton; and if you turn from statesmen to philosophers, how uneasy was the life of Descartes, how unhappy the career of Galileo, how tragic the end of Giordano Bruno. Well, these were Bacon's contemporaries—these were the politicians with whom

he was most closely connected, and the philosophers who made his age illustrious. How much more fortunate was his career than theirs! He had not to fly from place to place for fear of persecution, like Descartes. He suffered no long imprisonment, like Galileo. He was never threatened with the executioner's axe, or the assassin's dagger. Nor did he go to the stake, like Bruno. And however dark be the view we take of hereditary honours, everybody will, I think, admit that it is better to be made a viscount than to be burnt.

If I now pass from those aspects of Bacon's life, with which, for one reason or another I am either unqualified or unwilling to deal, I am left by a process of exhaustion to consider Bacon as a man of letters, an historian, or a philosopher. He was all three—a writer of most noble prose, one of the men most happily gifted for history that this country has produced, and in the character of a philosopher marking the beginning of a great epoch. As a philosopher his fate has been mixed. He has been magnificently praised, both in this country and abroad, by men whose praise is worth much; he has been violently abused by men whose abuse cannot be neglected; and—worst fate of all—his achievements have been vulgarised by some of his most ardent admirers. I do not think this is the occasion—perhaps even this is not the audience—appropriate to the delivery of a full and balanced judgment on the precise position which Bacon occupies in the history of European philosophy. He has been regarded both by enemies and by friends as the first father of that great empirical school of which we in this country have produced perhaps the most illustrious members, but which flourished splendidly in France during the eighteenth century. If this claim be good (I am not sure that it is) Bacon's philosophic position is, for that reason if for no other, a proud one. For whatever we may think of Locke and his successors, the mark they have made on the course of speculation is indelible.

I do not, however, propose to deal with these niceties of philosophic history. I shall probably better meet your wishes if I try to say in a very few words what I think was the real nature of the debt which the world owes to Bacon; and why it is that, amid universal approval, we are met here to-day to pay this tribute to his memory.

We shall make (I think) a great mistake if we try to prove that Bacon was, what he always said he was not, a maker of systems. He had neither the desire, nor I believe the gifts, which would have qualified him to be the architect of one of those great speculative systems which exist for the wonder, and sometimes for the instruction of mankind. But if he was not a system-maker, what was he? He was a prophet, and a seer. No doubt he aimed at more. He spent much time in attacking his philosophical predecessors, and took endless trouble with the details of his inductive method. Of his criticisms it is easy to say, and true, that they were often violent and not always fair. Of his inductive logic it is easy to say, and true, that he did not produce, as he hoped, an instrument of discovery so

happily contrived that even mediocrity could work wonders by the use of it. It is also true that he over-rated its coherence, and its cogency. But this is a small matter. I do not believe that formal logic has ever made a reasoner nor inductive logic a discoverer. And however highly we rate Bacon as an inductive logician, and the fore-runner of those recent thinkers who have developed and perfected the inductive theory, it is not as a logician, it is not as the inventor of a machine for discovery, that Bacon lives.

It is, however, quite as easy to under-rate as to over-rate Bacon's contribution to the theory of discovery. There are critics who suppose him guilty of believing that by the mere accumulation of observed facts the secrets of Nature can be unlocked; that the exercise of the imagination without which you can no more make new science than you can make new poetry, is useless or dangerous, and that hypothesis is no legitimate aid to experimental investigation. I believe this to be an error. I do not think that anybody who really tries to make out what Bacon meant by his Prerogative Instances and his Analogies will either deny that he believed in the unity of nature, and in our power of co-ordinating its multitudinous details, or will suppose that he under-rated the helps which the imagination and only the imagination, can give to him who is absorbed in the great task.

I return from this digression on Baconian method to the larger question on which we were engaged. I called Bacon a seer. What then was it that he saw? What he saw in the first place were the evil results which followed on the disdainful refusal of philosophers to adopt the patient and childlike attitude which befits those who come to Nature, not to impose upon Nature their own ideas, but to learn from her what it is that she has to teach them. Bacon is never tired of telling us that the kingdom of Nature, like the Kingdom of God, can only be entered by those who approach it in the spirit of a child. And there, surely, he was right. There, surely, his eloquence and his authority did much to correct the insolent futility of those verbal disputants who thought they could impose upon Nature their crude and hasty theories born of unsifted observations, interpreted by an unbridled fancy.

I do not mean to trouble you with many extracts. But there is one which so vividly represents Bacon, at least as I see him, that I believe you will thank me for reading it to you.

"Train yourselves," he says, "to understand the real subtlety of things, and you will learn to despise the fictitious and disputation subtleties of words, and, freeing yourselves from such follies, you will give yourselves to the task of facilitating—under the auspices of divine compassion—the lawful wedlock between the Mind and Nature. Be not like the empiric ant, which merely collects; nor like the cobweb-weaving theorists, who do but spin webs from their own intestines; but imitate the bees, which both collect and fashion. Against the 'Nought-beyond' and the ancients,

raise your cry of 'More-beyond'. When they speak of the 'Not-imitable-thunderbolt' let us reply that the thunderbolt is imitable. Let the discovery of the new terrestrial world encourage you to expect the discovery of a new intellectual world. The fate of Alexander the Great will be ours. The conquests which his contemporaries thought marvellous, and likely to surpass the belief of posterity, were described by later writers as nothing more than the natural successes of one who justly dared to despise imaginary perils. Even so, our triumphs (for we shall triumph) will be lightly esteemed by those who come after us; justly, when they compare our trifling gains with theirs; unjustly, if they attribute our victory to audacity rather than to humility, and to freedom from that fatal human pride which has lost us everything, and has hallowed the fluttering fancies of men, in place of the imprint stamped upon things by the Divine seal."

There surely speaks the seer. There you have expressed in burning words the vehement faith which makes Bacon the passionate philosopher so singular a contrast to Bacon the cold and somewhat poor-spirited politician. There is the vision of man's conquest over Nature, seen in its fullness by none before him, and not perhaps by many since. There is recognised with proud humility the little that could be accomplished by one individual and one generation towards its consummation: yet how great that little was if measured by its final results.

It is no doubt easy to praise this ideal vulgarly, as it is easy to belittle it stupidly. It can be made to seem as if the Baconian ideal was to add something to the material conveniences of life, and to ignore the aspirations of the intellect. But this is a profound error. It is true that (to use his own phrase) he looked with 'pity on the estate of man'. It is true that he saw in science a powerful instrument for raising it. But he put his trust in no petty device for attaining that great end. He had no faith in the chance harvests of empirical invention. His was not an imagination that crawled upon the ground, that shrank from wide horizons, that could not look up to Heaven. He saw, as none had seen before, that if you would effectually subdue Nature to your ends, you must master her laws. You must laboriously climb to a knowledge of great principles before you can descend to their practical employment. There must be pure science before there is applied science. And though these may now appear truisms, in Bacon's time they were the prophecies of genius made long before the event. I should like to ask those more competent than myself to decide the question, when it was that this prophecy of Bacon began in any large measure to be accomplished. I believe myself it will be found that it is relatively recently, say within the last three or four generations, that scientific research has greatly promoted industrial invention. Great discoveries were made by Bacon's contemporaries, by his immediate successors, and by men of science in every generation which has followed. But the effective application of pure knowledge to the augmentation of man's power over Nature is, I believe, of comparatively recent growth.

You may find early examples here and there ; but, broadly speaking, the effect which science has had, and is now having, and in increasing measure is predestined to have, upon the fortunes of mankind, did not declare itself by unmistakable signs until a century and a half or two centuries had passed since the death of the great man who so eloquently proclaimed the approach of the new era.

You may say to me—Grant that all this is true, grant that Bacon, in Cowley's famous metaphor, looked from Pisgah over the Promised Land, but did not enter therein ; or, as he said himself, that he sounded the clarion, but joined not in the battle ;—what then ? Did he do anything for science except make phrases about it ? Are we after all so greatly in his debt ? I answer that he created, or greatly helped to create, the atmosphere in which scientific discovery flourishes. If you consider how slightly science was in his day esteemed ; if you remember the fears of the orthodox, the contempt of the learned, the indifference of the great, the ignorance of the many, you will perhaps agree that no greater work could be performed in its interest than that to which Bacon set his hand. "He entered not the promised land." True ; but was it nothing to proclaim in the hearing of an indifferent generation that there *is* a promised land ? "He joined not in the battle." True ; but was it nothing to blow so loud a call that the notes of his clarion urging men to the fray are still ringing in our ears ? Let us not be ungrateful.

This is a theme on which much more could be said, but I am sure that this is not the time to say it. There was a magnificent compliment paid to Bacon's powers of speaking by Ben Jonson—a compliment so magnificent that, in my private conviction, neither Bacon nor any other speaker has ever deserved it. The poet alleges that the chief anxiety of those who heard the orator was lest his oratory should come to an end. This is not praise which in these degenerate days any of us are likely to deserve. But we need not rush into the other extreme : we need not compel our audience to forget all else in their desire that we should promptly sit down. That trial, at all events, I hope to spare you. I will not therefore dwell, as I partly intended, on such tempting subjects as the criticism passed on Bacon, and I may add, on Bacon's countrymen, by a great metaphysician of the last century. It may be enough to say that if Hegel thought little of Bacon, Bacon had he known Hegel would assuredly have regarded him as displaying the most complete example of what he most detested—the *intellectus sibi permissus*. Assuredly these great men were not made to understand each other : though for us the very magnitude of their differences, by making them incomparable, may allow us to admire both. However this may be, I shall have played my part if I have succeeded in showing reason why all who love science for its own sake, all who "looking with pity on the estate of man," believe that in science is to be found the most powerful engine for its material improvement, should join with this ancient Society in doing honour to the greatest among its members.

Beauty, and the Criticism of Beauty.

16. As it is permissible to feel for living personalities a degree of regard not nicely apportioned to the number and quality of their virtues, as we may have a tenderness even for their shortcomings, a lurking affection even for their very weaknesses, the same latitude of toleration must now and again be granted us in another sphere. In art as well as in life we must sometimes be allowed to feel that the native splendour of what is best in any man's work illumines, though with a borrowed glow, those parts which are less excellent, without being too constantly reminded that the glow is borrowed. In art as well as in life it must be given us sometimes to judge as lovers, and not with the chill impartiality of mere intimate acquaintance.

A sentiment of this kind need not, we may hope, impair the worth of criticism unless the critic is rendered by it incapable of separating what is personal in his estimate from that which is universal, unless it induces him to try and impose on the world in general the results of his own idiosyncrasies as if they were the products of tastes in which he might expect the rest of mankind to share. . . . [1887.]

17. The variations of opinion on the subject of beauty are notorious. Discordant pronouncements are made by different races, different ages, different individuals, the same individual at different times. Nor does it seem possible to devise any scheme by which an authoritative verdict can be extracted from this chaos of contradiction. An appeal, indeed, is sometimes made from the opinion of the vulgar to the decision of persons of 'trained sensibility'; and there is no doubt that, as a matter of fact, through the action of those who profess to belong to this class, an orthodox tradition has grown up which may seem at first sight almost to provide some faint approximation to the 'objective' standard of which we are in search. Yet it will be evident on consideration that it is

not simply on their 'trained sensibility' that experts rely in forming their opinion. The ordinary critical estimate of a work of art is the result of a highly complicated set of antecedents, and by no means consists in a simple and naked valuation of the 'æsthetic thrill' which the aforesaid work produces in the critic, now and here. If it were so, clearly it could not be of any importance to the art critic when and by whom any particular work of art was produced. Problems of age and questions of authorship would be left entirely to the historian, and the student of the beautiful would, as such, ask himself no question but this: How and why are my æsthetic sensibilities affected by this statue, poem, picture, as it is in itself? or (to put the same thing in a form less open to metaphysical disputation), What would my feelings towards it be if I were totally ignorant of its date, its author, and the circumstances of its production?

As we all know, these collateral considerations are never in practice ignored by the critic. He is preoccupied, and rightly preoccupied, by a multitude of questions beyond the mere valuation of the outstanding amount of æsthetic enjoyment which, in the year 1892, any artistic or literary work, taken *simpliciter*, is, as a matter of fact, capable of producing. He is much concerned with its technical peculiarities. He is anxious to do justice to its author, to assign him his true rank among the productive geniuses of his age and country, to make due allowance for his 'environment,' for the traditions in which he was nurtured, for the causes which make his creative genius embody itself in one form rather than in another. Never for one instant does the critic forget, or allow his reader to forget, that the real magnitude of the foreshortened object under observation must be estimated by the rules of historical perspective. Never does he omit, in dealing with the artistic legacies of bygone times, to take account of any long-accepted opinion which may exist concerning them. He endeavours to make himself the exponent of the 'correct view'. His judgment is, consciously or unconsciously, but not, I think, wrongly, a sort of compromise between that which he would form if he drew solely from his own inner experience, and that which has been formed for him by the accumulated wisdom of his predecessors on the bench. He expounds case-made law. He is partly the creature and partly the creator of a critical tradition; and we can easily conjecture how devious his course would be, were his orbit not largely controlled by the attraction of received views, if we watch the disastrous fate which so often overtakes him when he pronounces judgment on new works, or on works of which there is

no estimate embodied in any literary creed which he thinks it necessary to respect. Voltaire's opinion of Shakespeare does not make one think less of Voltaire, but it throws an interesting light on the genesis of average critical decisions and the normal growth of taste.

From these considerations, which might easily be supplemented, it seems plain that the opinions of critical experts represent, not an objective standard, if such a thing there be, but an historical compromise. The agreement among them, so far as such a thing is to be found, is not due solely to the fact that with their own eyes they all see the same things, and therefore say the same things; it is not wholly the result of a common experience: it arises in no small measure from their sympathetic endeavours to see as others have seen, to feel as others have felt, to judge as others have judged. This may be, and I suppose is, the fairest way of comparing the merits of deceased artists. But, at the same time, it makes it impossible for us to attach much weight to the assumed consensus of the ages, or to suppose that this, so far as it exists, implies the reality of a standard independent of the varying whims and fancies of individual critics. In truth, however, the consensus of the ages, even about the greatest works of creative genius, is not only in part due to the process of critical manufacture indicated above, but its whole scope and magnitude are absurdly exaggerated in the phrases which pass current on the subject. This is not a question, be it observed, of æsthetic right and wrong, of good taste or bad taste; it is a question of statistics. We are not here concerned with what the mass of mankind, even of educated mankind, ought to feel, but with what as a matter of fact they do feel, about the works of literature and art which they have inherited from the past. And I believe that every impartial observer will admit that, of the æsthetic emotion actually experienced by any generation, the merest fraction is due to the 'immortal' productions of the generations which have long preceded it. Their immortality is largely an immortality of libraries and museums; they supply material to critics and historians, rather than enjoyment to mankind; and if it were to be maintained that one music-hall song gives more æsthetic pleasure in a night than the most exquisite compositions of Palestrina in a decade, I know not how the proposition could be refuted.

The ancient Norsemen supposed that besides the soul of the dead, which went to the region of departed spirits, there survived a ghost, haunting, though not for ever, the scenes of his earthly labours.

At first vivid and almost life-like, it slowly waned and faded, until at length it vanished, leaving behind it no trace or memory of its spectral presence amidst the throng of living men. So, it seems to me, is the immortality we glibly predicate of departed artists. If they survive at all, it is but a shadowy life they live, moving on through the gradations of slow decay to distant but inevitable death. They can no longer, as heretofore, speak directly to the hearts of their fellow-men, evoking their tears or laughter, and all the pleasures, be they sad or merry, of which imagination holds the secret. Driven from the market-place, they become first the companions of the student, then the victims of the specialist. He who would still hold familiar intercourse with them must train himself to penetrate the veil which, in ever-thickening folds, conceals them from the ordinary gaze; he must catch the tone of a vanished society, he must move in a circle of alien associations, he must think in a language not his own. Need we, then, wonder that under such conditions the outfit of a critic is as much intellectual as emotional, or that if from off the complex sentiments with which they regard the 'immortal legacies of the past' we strip all that is due to interests connected with history, with biography, with critical analysis, with scholarship, and with technique, but a small modicum will, as a rule, remain which can with justice be attributed to pure æsthetic sensibility. . . . [1895.]

18. By whatever means conformity to a particular pattern may have been brought about, those who conform are not, as a rule, conscious of coercion by an external and arbitrary authority. They do not act under penalty; they yield no unwilling obedience. On the contrary, their admiration for a 'well-dressed person,' *quâ* well-dressed, is at least as genuine an æsthetic approval as any they are in the habit of expressing for other forms of beauty; just as their objection to an out-worn fashion is based on a perfectly genuine æsthetic dislike. They are repelled by the unaccustomed sight, as a reader of discrimination is repelled by turgidity or false pathos. It appears to them ugly, even grotesque, and they turn from it with an aversion as disinterested, as unperturbed by personal or 'society' considerations, as if they were critics contemplating the production of some pretender in the region of Great Art. . . . [1895.]

19. It will be convenient to distinguish between the mode in which the public who enjoy, and the artists who produce, respectively promote æsthetic change. That the public are often weary and expectant—wearied of what is provided for them, and expectant of some good thing to come—will hardly be denied. Yet I do not think they can be usually credited with the conscious demand for a fresh artistic development. For though they often want some new thing, they do not often want a *new kind* of thing; and, accordingly, it commonly, though not invariably, happens that, when the new thing appears, it is welcomed at first by the few, and only gradually—by the force of fashion and otherwise—conquers the genuine admiration of the many.

The artist, on the other hand, is moved in no small measure by a desire that his work should be his own, no pale reflection of another's methods, but an expression of himself in his own language. He will vary for the better if he can, yet, rather than be conscious of repetition, he will vary for the worse; for vary he must, either in substance or in form, unless he is to be in his own eyes, not a creator, but an imitator; not an artist, but a copyist. . . . [1895.]

20. That which is beautiful is not the object as we know it to be—the vibrating molecule and the undulating ether—but the object as we know it not to be—glorious with qualities of colour or of sound. Nor can its beauty be supposed to last any longer than the transient reaction between it and our special senses, which are assuredly not permanent or important elements in the constitution of the world in which we live. . . . [1895.]

21. The agreement between critics, in so far as it exists, is to no small extent an agreement in statement and in analysis, rather than an agreement in feeling; they have the same opinion as to the cooking of the dinner, but they by no means all eat it with the same relish. In few cases, indeed, do their estimates of excellence correspond with the living facts of æsthetic emotion as shown either in themselves or in anybody else. Their whole procedure, necessary though it may be for the comparative estimate of the worth of individual artists, unduly conceals the vast and arbitrary¹

¹ 'Arbitrary,' i.e. not due to any causes which point to the existence of objective beauty.

changes by which the taste of one generation is divided from that of another. And when we turn from critical tradition to the æsthetic likes and dislikes of men and women; when we leave the admirations which are professed for the emotions which are felt, we find in vast multitudes of cases that these are not connected with the object which happens to excite them by any permanent æsthetic bond at all. Their true determining cause is to be sought in fashion, in that 'tendency to agreement' which plays so large and beneficent a part in social economy. [1895.]

[*The remaining extracts under this heading are taken from the "Romanes Lecture," delivered at Oxford University in November, 1909.*]

22. From prehistoric times men have occupied themselves in producing works of Art: since the time of Aristotle they have spent learned energy in commenting on them. How much are we the wiser? What real insight do the commentaries give us into the qualities which produce æsthetic pleasure, or into the marks which distinguish good art from bad?

Any man desirous of obtaining answers to questions like these would naturally turn in the first place to the history of criticism, and if he did so he would certainly be well rewarded. It may be doubted, however, whether the reward would consist in the satisfaction of his curiosity. For in proportion as criticism has endeavoured to establish principles of composition, to lay down laws of Beauty, to fix criterions of excellence, so it seems to me to have failed: its triumphs, and they are great, have been won on a different field. The critics who have dealt most successfully with theory have dealt with it destructively. They have demolished the dogmas of their predecessors, but have advanced few dogmas of their own. So that, after some twenty-three centuries of æsthetic speculation, we are still without any accepted body of æsthetic doctrine.

23. The criticism of music and painting shows the same weaknesses as the criticism of literature. Theory has lagged behind practice; and the procedure of the dead has too often been embodied in rules which serve no other purpose than to embarrass the living.

Criticism, however, of this kind has had its day. It is no longer in demand. The attempt to limit æsthetic expression by rules is

seen to be futile. The attempt to find formulæ for the creation of new works of beauty by taking old works of beauty to pieces and noting how they were made is seen to be more futile still. But if these kinds of criticism are obsolete, what is the criticism which now occupies their place?

It is abundant, and, I think, admirable. The modern commentator is concerned rather to point out beauties than to theorise about them. He does not measure merit by rule, nor crowd his pages with judgments based on precedent. His procedure is very different. He takes his reader, as it were, by the hand, wanders with him through some chosen field of Literature or Art, guides him to its fairest scenes, dwells on what he deems to be its beauties, indicates its defects, and invites him to share his pleasures. His commentary on Art is often itself a work of art; he deals with literature in what is in itself literature. And he so uses the apparatus of learned research that the least sympathetic reader, though he need not admire, can scarcely fail to understand the author criticised, the ends he aimed at, the models that swayed him, the conventions within which he worked, the nature of the successes which it was his fortune to achieve.

Of criticism like this we cannot have too much. Yet it has its difficulties; or rather it suggests difficulties which it scarcely attempts to solve. For its æsthetic judgments are, in spite of appearances, for the most part immediate and, so to speak, intuitive. 'Lo, here!' 'Lo, there!' 'This is good!' 'That is less good!' 'What subtle charm in this stanza!' 'What masterly orchestration in that symphony!' 'What admirable realism!' 'What delicate fancy!' The critic tells you what he likes or dislikes. He may even seem to tell you why. But the "why" is really more than a statement of personal preferences. For these preferences he may quote authority. He may classify them. He may frame general propositions about them, which have all the air of embodying critical principles on which particular æsthetic judgments may securely rest. But, in fact, these general propositions only summarise a multitude of separate valuations of æsthetic merit, each of which is either self-sustaining or is worthless.

24. No one willingly believes that what he greatly admires is admirable only for him. We all instinctively lean to the opinion that beauty has 'objective' worth, and that its expression, whether

in nature or in art, possesses, as of right, significance for the world at large.

25. In the case of games, the pleasures which the sympathetic observation of great skill produces in a competent spectator are unaffected by the result ; for, beyond itself, true sport has, properly speaking, no result. Victory and defeat are subordinate incidents. The final cause of games is the playing of them. In Art, on the other hand, skill is a means to an end ; and if the end be not attained there is apt to arise a certain feeling of dissatisfaction. Dexterous versification which does not result in poetry, admirable brush-work expressing a mean design, may in their degree give pleasure ; but it is pleasure marred by the reflection that the purpose for which versification and painting exist has not, in these cases, been accomplished.

However this may be, my contention is that the pleasure given by the contemplation of technical dexterity is æsthetic, and that technical dexterity itself is capable of objective estimation. In games of pure skill it is certainly so. He plays best who wins. The scorer is an infallible critic ; and his standard of excellence is as 'objective' as any man could desire. In other cases, no doubt, the measure of technical merit may not be so precise. It may be hard, for example, to decide which member of a hunt rides best across country, or which composer shows the greatest mastery of counterpoint and fugue. Yet these also are questions more or less capable of 'objective' estimation. The trained critic, be it in the art of riding or in contrapuntal conventions, may, by the application of purely impersonal tests, make a tolerably fair comparison. Familiar with the difficulties which have to be met, he can judge of the success with which they have been surmounted. Basing his estimate, not on feeling but on knowledge, he can measure æsthetic qualities by a scale which is not the less 'objective' because it may often be uncertain in its application.

26. When we say that a tune is melodious, or an image sublime, or a scene pathetic, the adjectives may seem to be predicated of these objects, in precisely the same way as redness is predicated of a geranium. But it is not so. As I have already observed, we are merely naming the sentiments they produce,

not the qualities by which they produce them. We cannot describe the higher beauties of beautiful objects except in terms of æsthetic feeling—and *ex vi termini* such descriptions are subjective.

It may, however, be admitted that if there were a general agreement about things that are beautiful, only philosophers would disquiet themselves in order to discover in what precisely their beauty consisted. But notoriously there is no such agreement. Difference of race, difference of age, different degrees of culture among men of the same race and the same age, individual idiosyncrasy and collective fashion occasion, or accompany, the widest possible divergence of æsthetic feeling. The same work of art which moves one man to admiration, moves another to disgust; what rouses the enthusiasm of one generation, leaves another hostile or indifferent. These things are undeniable, and are not denied.

27. The unfelt pressure of general opinion produces not merely sham professions, but genuine sentiments. Fashion, whether in clothes or operas, whether in manners or in morals (as I have shown elsewhere), is an influence which, though it may produce some hypocrites, most certainly produces many true believers. And tradition, though infinitely more than mere fashion, is fashion still.

These considerations require us largely to discount the agreement prevalent in current estimates of literature and art. But there is a more important point still to be noted, which yet further diminishes the value of any conclusions which that agreement may seem to support. For we are bound to ask how deep the agreement goes even in the cases where in some measure it may be truly said to exist. Do critics who would approximately agree in their lists of great artists, agree as to the order of their excellence? Do men of 'trained sensibility' feel alike in the presence of the same masterpiece? I do not believe it. The mood of admiration aroused by style, by technical skill, by the command of material and instruments, may well form a common ground where competent critics will find themselves in decent agreement. But as the quality of æsthetic emotion rises, as we approach the level where the sentiment of beauty becomes intense, and the passion of admiration incommunicable, there is not—and, I believe, cannot be—any real unanimity of personal valuation. On these high peaks men never wander in crowds: they whose paths lie close together on the slopes

below, perforce divide into diminishing companies, as each moves upwards towards his chosen ideals of excellence.

If any man doubt that the agreement among experts is in some degree artificial, and in some degree imaginary, let him turn for a moment from the critics who have created our literary and artistic tradition to the men of genius who have created Literature and Art. No one will deny that they were men of 'trained sensibility': no one will maintain that they were agreed. So little, indeed, have they been agreed, that the law of change prevailing through certain important periods of artistic history seems to be based on their disagreement. Successive epochs, which show little difference in other elements of culture, yet often differ vehemently in their æsthetic judgments. Action is followed by reaction. A school, at one moment dominant, gradually decays, and is succeeded by another of sharply contrasted characteristics. The art-producing fields get wearied, as it were, of a crop too often sown; their harvests dwindle; until in the fullness of time a new vegetation, drawing upon fresh sources of nourishment, springs suddenly into vigorous and aggressive life.

28. All that my argument requires is proof that the judgments of great writers and artists, especially when they are untamed by the orthodoxies of tradition, show none of that agreement of which we are in search. Wordsworth on the eighteenth century, Boileau on the sixteenth, Voltaire on Shakespeare, the French romantics on the French classics, the Renaissance on the Middle Ages, are familiar illustrations of the point. And if further evidence be required, note how rarely eminent critics endeavour to lead opinion upon new artistic developments, and how rarely, when they do, they succeed in anticipating the verdict of posterity—so hesitating is their tread, so wandering their course, when they cannot lean on a tried tradition.

29. Music, however, is the art which perhaps most clearly shows how futile is the search for agreement among men of 'trained sensibility'. It is indeed an art which, I may parenthetically observe, has many peculiar merits as a subject of æsthetic study. It makes no assertions; so its claims on our admiration can have nothing to do with 'the True'. It serves no purpose; so it raises

no question as to the relation between 'the beautiful' and 'the useful'. It copies nothing; so the æsthetic worth of imitation and the proper relation of Art to Nature are problems which it never even suggests. From the endless controversies about Realism, Idealism, and Impressionism, with which the criticism of other arts have been encumbered, musical criticism is thus happily free: while the immense changes which have revolutionised both the artistic methods and the material resources of the musician—changes without a parallel either in literature, in painting, in sculpture, or even in architecture—have hindered the growth of an orthodox tradition. Music thus occupies in some respects a place apart: but its theoretic importance cannot on that account be ignored. On the contrary, it becomes all the more imperative to remember that no æsthetic principle which fails to apply to it can be other than partial and provincial. It can never claim to be a law governing the whole empire of artistic beauty.

30. What title has the opinion of experts to authority in matters æsthetic? Even if it showed that agreement in which it is so conspicuously lacking, why should men endeavour to mould their feelings into the patterns it prescribes? In the practical affairs of life we follow those who have made a special study of some particular problem, only because they have greater knowledge than ourselves of the relevant facts. But in the region of Æsthetics, what are the relevant facts? If the worth of beauty lie in the emotion which it occasions, special knowledge can only be of importance when it heightens that emotion. It may be a stimulus, but how can it be a guide?

31. Does not the direct appeal made to uncultivated receptivity by what critics would describe as very indifferent art, sometimes produce æsthetic emotion which, measured by its intensity, might be envied by the most delicate connoisseur? Who shall deny that the schoolboy, absorbed in some tale of impossible adventure, incurious about its author, indifferent to its style, interested only in the breathless succession of heroic endeavours and perilous escapes, is happy in the enjoyment of what is Art, and nothing but Art? If to those of riper years and different tastes the art seems poor, does that make it poor? Does such a judgment condemn either

writer or reader? Surely not. The writer, to be sure, may be something less than Homer: but the spirit of the reader, simple, credulous, enjoying, is the spirit in which, of old, before criticism was born, some Greek king and his high-born guests listened to the tale of Troy and the wanderings of Ulysses.

I do not, of course, either say or think that the pleasures of Art diminish as the knowledge of Art augments. Some loss there commonly is, as men grow old and learned, yet we may hope that in most cases it is compensated a hundred-fold. But it is not always so. In popular usage the very word 'criticism' suggests the detection of faults and the ignoring of merits; in popular esteem the refusal to admire marks the man of taste. This singular view, which suggests the inference that artistic education is an instrument for making men fastidious and preventing them being happy, derives, it may be, some faint support from facts. Are there not persons to be found who have sharpened the delicacy of their æsthetic discrimination to the finest edge, yet take but small pleasure in beauty—who are the oracles of artistic societies, the terror (or perhaps the Providence) of rich collectors, whom no copy can deceive, nor any original delight? Surely the worst taste in the world is better than taste so good as this!

32. There have been in Literature—indeed, I think in all Arts—men of delicate or peculiar genius, whose works make little appeal to the crowd, yet find at intervals through many generations a few devoted lovers. Their names may have an established place in history, and their writings be read for purposes of study or examination. But the number of those who really feel their charm is small. Count them, and they would not in a century equal the audiences which in six months are moved to tears or laughter by some popular play. Which, then, of these two, contributes most to the æsthetic pleasures of the world—the play which, in its brief moment of favour, gives widespread delight, or the poem (if poem it be) which is long remembered but little read?

No one would give his verdict for the play. Yet why not? It is, I suppose, because we rate the delicate pleasure given by the poem as higher in 'quality,' though it be smaller in 'quantity' than the commoner joys supplied wholesale by its rival. And this may be perfectly right. Beyond doubt, there are real distinctions, corresponding to such words as 'higher' and 'lower,' 'refined' and

'commonplace'; beyond doubt, we cannot regard æsthetic emotion as a homogeneous entity, undifferentiated in quality, simply to be measured as 'more' or 'less'. This makes it hard enough for a man to determine a scale of values which shall honestly represent his own æsthetic experience. But does it not make it absolutely hopeless to find a scale which shall represent, even in the roughest approximation, the experiences of mankind? The task is inherently impossible; and it is made doubly impossible by the difficulty we all find in excluding irrelevant considerations. The thing to be discovered being what men *do* feel, we are always considering what, if their taste was good, they *ought* to feel; what, if they were properly trained, they *would* feel; what it is best for their spiritual well-being that they *should* feel, and so forth. None of which questions, important and interesting as they are, assist us to discover or to apply a scale of values based merely on the æsthetic emotions actually experienced.

33. We must recognise that, while training is necessary to the comprehension, and therefore to the full enjoyment, of many works of art—while, in particular, the sympathetic delight in masterly workmanship can hardly be obtained without it—few æsthetic emotions exceed in intensity the simple raptures aroused in naïve souls by works which instructed criticism would often refuse to admire. And we must own that, if, defeated in the attempt to base our judgments on authority, we endeavour to base them on general experience; if we say that *that* is the greatest æsthetic performance which gives to mankind the greatest æsthetic delight, we are brought face to face with countless difficulties; among which not the least is the difficulty of saying what *is* the greatest æsthetic delight, when the greatness which has to be measured is a value dependent on the 'quality' of the delight, as well as on its 'quantity'.

34. For myself I admit that I require a mystical supplement to that strictly critical view of beauty and art with which alone I am now concerned. But nothing is gained by pretending that we have reached the point where the two can be blended in a one harmonious system. So far as I can see, we are not near it. In particular I can find no justification in experience for associating great art with penetrating insight, or good art with good

morals. Optimism and pessimism; materialism and spiritualism; theism, pantheism, atheism; morality and immorality; religion and irreligion; lofty resignation and passionate revolt—each and all have inspired or helped to inspire the creators of artistic beauty. It would even (I suppose) be rash confidently to assert that the ‘everlasting Yea’ provides material more easily moulded to the uses of high imagination than the ‘everlasting Nay’; while it is certain that cheap cynicism and petty spite have supplied the substance of literary achievements which we could ill afford to lose.

35. The result, then, of this concise survey of a great subject is negative. Apart from transcendental metaphysics, I have said enough (in my belief at least) to show that neither considered in themselves, nor in their relation to any wider outlook, can our valuations of beauty claim ‘objective’ validity. We can say of a work of art or a scene in nature—‘this moves me’; we may partially distinguish the elements which produce the total result and attempt some estimate of their worth separately as well as in combination; we may compare æsthetic merit in respect of quality as well as quantity, saying, for example, of one thing—‘this is great’;¹ of another—‘this is exquisite’; of a third—‘this is merely pretty,’ and so on. But beyond statements embodying personal valuations like these we can rarely go. We cannot devise a code of criticism. We cannot define the dogmas of æsthetic orthodoxy. We can appeal neither to reason, nor experience, nor authority. Ideals of beauty change from generation to generation. Those who produce works of art disagree; those who comment on works of art disagree; while the multitude, anxious to admire where they ‘ought,’ and pathetically reluctant to admire where they ‘ought not,’ disagree like their teachers.

36. There are other kinds of feeling which are closely associated with the practical side of life. These always look beyond themselves; if not prompting some action they are always on the edge of prompting it. Action is their fitting and characteristic issue. Like the feelings which I have loosely described as contemplative, they are often intrinsically worthless, or worse than worthless. Thus the sentiment of fear, though presumably it has

¹ ‘Great’ in criticism commonly expresses quality, not mere quantity.

its uses, can never in itself be either agreeable or noble. But some emotions there are belonging to the active class which possess the highest intrinsic value of which we have any knowledge. Such is love—love of God, of country, of family, of friends. These emotions, like those of fear or appetite, will, on fit occasions, inevitably result in deeds; nor can they be considered genuine, if in this respect they fail. But they have an inherent value apart from their practical effects. We cannot measure their worth solely by their external consequences: if we attempt it, we fall inevitably into the gravest error.

The distinction, it should be observed, between these two classes of feelings does not necessarily imply that they are excited by two classes of objects. On the contrary, the same object may, and constantly does, excite feelings of both kinds. The splendours of a tempestuous sunset seen from a sheltered balcony give contemplative delight of a high order. The same spectacle, seen by a footsore traveller across a naked moor, may be only a spur to painful effort. A trumpet heard in a concert-room merely heightens an orchestral effect; heard in camp, it imperiously calls to arms. And (to give one more illustration) wars and revolutions, the struggles of nations and of creeds, are one thing to a man who shares them, quite another to the man who reads of them in history. While history itself is to those who study it for sheer interest in the doings of mankind, an art, and one of the greatest;—to those who study it that they may ‘learn its lessons,’ refute a political opponent, or pass a competitive examination, no more than a branch of useful knowledge.

Here, then, we have two great divisions of feelings—the one self-sufficing, contemplative, not looking beyond its own boundaries, nor essentially prompting to any action; the other lying at the root of conduct, always having some external reference, supplying the immediate motive for all the actions of mankind. Of highest value in the contemplative division is the feeling of beauty; of highest value in the active division is the feeling of love.

37. Does the destruction of æsthetic orthodoxy carry with it, as an indirect but inevitable consequence, the diminution of æsthetic values? I think not. And I think not, because no such consequences follow from a like state of things in the great class of

feelings which I have described as active or 'practical'. Love is governed by no abstract principles. It obeys no universal rules. It knows no objective standard. It is obstinately recalcitrant to logic. Why should we be impatient because we can give no account of the characteristics common to all that is beautiful, when we can give no account of the characteristics common to all that is lovable? It may be easy enough for the sociologist to explain in general terms how necessary it is for the well-being of any community that there should be found among its members a widespread capacity for disinterested affection. And it is not hard to show that, in the general interests, it is highly desirable that this affection should flow, in the main, along certain well-defined channels. It is better, for example, that a man should love his own country and his own family than some one else's country and some one else's family. But though ethical, religious, and utilitarian considerations are thus bound up more closely with our practical emotions than with our contemplative ones, we can make abstraction of them in the one case as in the other. And if we do, will it be found easier to fix a measure of the 'lovable' than we have found it to fix a measure of the beautiful? I do not believe it. We talk indeed of some person or some collection of persons possessing qualities which *deserve* our love. And the phrase is not unmeaning. It has, as we have seen, its parallel in the region of æsthetics. But love in its intensest quality does not go by deserts, any more than æsthetic feeling in its intensest quality depends on any measurable excellence. That is for every man most lovable which he most dearly loves. That is for every man most beautiful which he most deeply admires. Nor is this merely a reiteration of the old adage that there is no disputing about tastes. It goes far deeper; for it implies that, in the most important cases of all, a dispute about either love or beauty would not merely be useless; it would be wholly unmeaning.

Let us, then, be content, since we can do no better, that our admirations should be even as our loves. I do not offer this advice as a theory of æsthetics, nor even as a substitute for such a theory. I must repeat, indeed, that, so far as I am concerned, it represents a point of view which is not tolerable, even provisionally, unless there be added to it some mystical reference to first and final causes. This, however, opens a train of thought far outside the scope of the present lecture; far outside the scope of any lecture that I am

qualified to deliver. For us, here and now, it must suffice, that however clearly we may recognise the failure of critical theory to establish the 'objective' reality of beauty, the failure finds a parallel in other regions of speculation, and that nevertheless, with or without theoretical support, admiration and love are the best and greatest possessions which we have it in our power to enjoy.

M. Bergson.

[See also "A DEFENCE OF PHILOSOPHIC DOUBT," Extract 150.]

[*The extracts under this heading are taken from the article contributed to the "Hibbert Journal," October, 1911.*]

38. With the arguments of "Foundations of Belief" I do not propose to trouble the reader. But it may make clearer what I have to say about "L'Evolution créatrice" if I mention that (among other conclusions) I arrive at the conviction that in accepting science, as we all do, we are moved by 'values' not by logic. That if we examine fearlessly the grounds on which judgments about the material world are founded, we shall find that they rest on postulates about which it is equally impossible to say that we can theoretically regard them as self-evident, or practically treat them as doubtful. We can neither prove them nor give them up. 'Concede' (I argued) the same philosophic weight to values in departments of speculation which look beyond the material world, and naturalism will have to be abandoned. But the philosophy of science would not lose thereby. On the contrary, an extension of view beyond phenomena diminishes rather than increases the theoretical difficulties with which bare naturalism is beset. It is not by a mere reduction in the area of our beliefs that, in the present state of our knowledge, certainty and consistency are to be reached. Such a reduction could not be justified by philosophy. But, justifiable or not, it would be quite impracticable. 'Values' refuse to be ignored.

A scheme of thought so obviously provisional has no claim to be a system, and the question therefore arises—at least, it arises for me—whether the fruitful philosophic labours of the last twenty years have found answers to the problem which I find most perplex-

ing? I cannot pretend to have followed as closely as I should have desired the recent developments of speculation in Britain and America—still less in Germany, France, or Italy. Even were it otherwise, I could not profitably discuss them within the compass of an article. But the invitation to consider from this point of view a work so important as "*L'Evolution créatrice*," by an author so distinguished as M. Bergson, I have found irresistible.

39. There cannot be a topic which provides a more fitting text for what I have to say in this connection than Freedom. To the idealist, Absolute spirit is free; though when we come to the individual soul I am not sure that its share of freedom amounts (in most systems) to very much. To the naturalistic thinker there is, of course, no Absolute, and no soul. Psychic phenomena are a function of the nervous system. The nervous system is material, and obeys the laws of matter. Its behaviour is as rigidly determined as the planetary orbits, and might be accurately deduced by a being sufficiently endowed with powers of calculation, from the distribution of matter, motion, and force, when the solar system was still nebular. To me, who am neither idealist nor naturalist, freedom is a reality; partly because, on ethical grounds, I am not prepared to give it up; partly because any theory which, like 'naturalism,' requires reason to be mechanically determined, is (I believe) essentially incoherent; and if we abandon mechanical determinism in the case of reason, it seems absurd to retain it in the case of will; partly because it seems impossible to find room for the self and its psychic states in the interstices of a rigid sequence of material causes and effects. Yet the material sequence is there; the self and its states are there; and I do not pretend to have arrived at a satisfactory view of their reciprocal relations. I keep them both, conscious of their incompatibilities.

A bolder line is taken by M. Bergson, and his point of view, be it right or wrong, is certainly far more interesting. He is not content with refusing to allow mechanical or any other form of determinism to dominate life. He makes freedom the very corner-stone of his system—freedom in its most aggressive shape. Life is free, life is spontaneous, life is incalculable. It is not indeed out of relation to matter, for matter clogs and hampers it. But not by matter is its direction wholly determined, not from matter is its forward impulse derived.

As we know it upon this earth, organic life resembles some great river system, pouring in many channels across the plain. One stream dies away sluggishly in the sand, another loses itself in some inland lake, while a third, more powerful or more fortunate, drives its tortuous and arbitrary windings further and yet further from the snows that gave it birth.

40. M. Bergson objects to teleology only less than to mechanical determinism. And, if I understand him aright, the vital impulse has no goal more definite than that of acquiring an ever fuller volume of free creative activity.

But what in M. Bergson's theory corresponds to the sources of these multitudinous streams of life? Whence come they? The life we see—the life of plants, of animals, of men—have their origin in the single life which he calls super-consciousness, above matter and beyond it; which divides, like the snow-fields of our simile, into various lines of flow, corresponding to the lines of organic development, described by evolutionary biology. But as the original source of organic life is free, indeterminate, and incalculable, so this quality never utterly disappears from its derivative streams, entangled and thwarted though they be by matter. Life, even the humblest life, does not wholly lose its original birthright, nor does it succumb completely to its mechanical environment.

Now it is evident that if the ultimate reality is this free creative activity, *time* must occupy a position in M. Bergson's philosophy quite other than that which it holds in any of the great metaphysical systems. For in these, time and temporal relation are but elements within an Absolute, itself conceived as timeless; whereas M. Bergson's Absolute almost resolves itself into time—evolving, as it were by a free effort, new forms at each instant of a continuous flow. A true account of the Absolute would therefore take the form of history. It would tell us of the Absolute that has been and is, the Absolute 'up to date'. Of the Absolute that is to be, no account can be given; its essential contingency puts its future beyond the reach of any powers of calculation, even were those powers infinite in their grasp.

Now this view of reality, expounded by its author with a wealth of scientific as well as of philosophical knowledge which must make his writings fascinating and instructive to those who least agree with them, suggests far more questions than it would be possible merely to catalogue, much less to discuss, within the limits of this paper.

But there is one aspect of the theory from my point of view of fundamental interest, on which something must be said—I mean the relation of M. Bergson's free creative consciousness to organised life and to unorganised matter—to that physical Universe with which biology, chemistry, and physics are concerned.

41. M. Bergson, while denying that life—will—consciousness, as we know them on this earth of ours, are mere functions of the material organism, does not, as we have seen, deny that they, in a sense, depend on it. They depend on it as a workman depends on a tool. It limits him, though he uses it.

Now the way in which life uses the organism in which it is embodied is by releasing at will the energy which the organism has obtained directly or indirectly from the sun—directly in the case of plants, indirectly in the case of animals. The plants hoard much but use little. The animals appropriate their savings.

To M. Bergson, therefore, organised life essentially shows itself in the sudden and quasi-explosive release of these accumulations. Indeed he carries this idea so far as to suggest that any material system which should store energy by arresting its degradation to some lower level,¹ and should produce effects by its sudden liberation, would exhibit something in the nature of life. But this is surely going too far. There are plenty of machines used for manufacturing or domestic purposes which do just this; while in the realm of nature there seems no essential physical distinction between (on the one hand) the storing up of solar radiation by plants and its discharge in muscular action, and (on the other) the slow production of aqueous vapour, and its discharge during a thunderstorm in torrential rain. Yet all would admit that the first is life, while the second is but mechanism.

It is rash to suggest that a thinker like M. Bergson has wrongly emphasised his own doctrines. Yet I venture, with great diffidence, to suggest that the really important point in this part of his theory, the point where his philosophy breaks finally with 'mechanism,' the point where freedom and indeterminism are really introduced into the world of space and matter, is only indirectly connected with the bare fact that in organic life accumulated energy is released. What is really essential is the *manner* of its release. If the release be effected by pure mechanism, fate still reigns supreme. If, on

¹ This refers to the second law of thermo-dynamics. It is interesting to observe that M. Bergson regards this as philosophically more important than the first law.

the other hand, there be anything in the mode of release, however trifling, which could not be exhaustively accounted for by the laws of matter and motion, then freedom gains a foothold in the very citadel of necessity. Make the hair trigger which is to cause the discharge as delicate as you please, yet if it be pulled by forces dependent wholly upon the configuration and energy of the material universe at the moment, you are nothing advanced. Determinism still holds you firmly in its grip. But if there be introduced into the system a new force—in other words, a new creation—though it be far too minute for any instrument to register, then if it either pull the trigger or direct the explosion, the reality of contingency is established, and our whole conception of the physical world is radically transformed.

This, I conceive, must be M. Bergson's view. But his theory of the relation between life—freedom—will, on the one side, and matter on the other, goes much further than the mere assertion that there is in fact an element of contingency in the movements of living organisms. For he regards this both as a consequence and as a sign of an effort made by creative will to bring mechanism more and more under the control of freedom. Such efforts have, as biology tells us, often proved abortive. Some successes that have been won have had again to be surrendered. Advance, as in the case of many parasites, has been followed by retrogression. By comparing the molluscs, whose torpid lives have been repeating themselves without sensible variation through all our geological records, with man, in whom is embodied the best we know of consciousness and will, we may measure the success which has so far attended the efforts of super-consciousness in this portion of the Universe.

I say, in this portion of the Universe, because M. Bergson thinks it not only possible but probable that elsewhere in space the struggle between freedom and necessity, between life and matter, may be carried on through the sudden liberation of other forms of energy than those which plants accumulate by forcibly divorcing the oxygen and the carbon atoms combined in our atmosphere. The speculation is interesting, though, from the point of view of science, somewhat hazardous. From the point of view of M. Bergson's metaphysic, however, it is almost a necessity. For his metaphysic, like every metaphysic, aims at embracing all reality; and as the relation between life and matter is an essential part of it, the matter with which he deals cannot be restricted to that which constitutes our negligible fraction of the physical world.

But what, according to his metaphysic, *is* the relation of life, consciousness, in general, to matter in general? His theory of *organic* life cannot stand alone. For it does not get us beyond individual living things, struggling freely, but separately, with their own organisms, with each other, and with the inert mass of the physical world which lies around them. But what the history of all this may be, whence comes individual life, and whence comes matter, and what may be the fundamental relation between the two, this has still to be explained.

And, frankly, the task of explanation for any one less gifted than M. Bergson himself is not an easy one. The first stage, indeed, whether easy or not, is at least familiar. M. Bergson thinks, with other great masters of speculation, that consciousness, life, spirit is the *prius* of all that is, be it physical or mental. But let me repeat that the *prius* is, in his view, no all-inclusive absolute, of which our world, the world evolving in time, is but an aspect or phase. His theory, whatever its subsequent difficulties may be, is less remote from common-sense. For duration with him is, as we have seen, something pre-eminently real. It is not to be separated from the creative consciousness. It is no abstract emptiness, filled up by successive happenings, placed (as it were) end to end. It must rather be regarded as an agent in that continuous process of free creation which is life itself.

Since, then, consciousness and matter are not to be regarded as entities of independent origin, ranged against one another from eternity, like the good and evil principles of Zoroaster, what is the relation between them? If I understand M. Bergson aright, matter must be regarded as a by-product of the evolutionary process. The primordial consciousness falls, as it were, asunder. On the one side it rises to an ever fuller measure of creative freedom; on the other, it lapses into matter, determinism, mechanical adjustment, space. Space with him, therefore, is not, as with most other philosophers, a correlative of Time. It has not the same rank (whatever that may be) in the hierarchy of being. For, while Time is of the essential of primordial activity, Space is but the limiting term of those material elements which are no more than its backwash.

I do not, of course, for a moment delude myself into the belief that I have made these high speculations clear and easy. The reader, justly incensed by my rendering of M. Bergson's doctrine, must find his remedy in M. Bergson's own admirable exposition. I may, however, have done enough to enable me to make intelligible

certain difficulties which press upon me, and may, perhaps, press also upon others.

42. M. Bergson holds that events which, because they are contingent, even infinite powers of calculation could not foresee, may yet be accounted for, even by our very modest powers of thought, after they have occurred. I own this somewhat surprises me. And my difficulty is increased by the reflection that free consciousness pursues no final end, it follows no predetermined design. It struggles, it expends itself in effort, it stretches ever towards completer freedom, but it has no plans.

43. Of primordial consciousness, however, we know neither the objects nor the opportunities. It follows no designs, it obeys no laws. The sort of explanation, therefore, which satisfies us when we are dealing with one of its organic embodiments, seems hard of attainment in the case of primordial consciousness itself. I cannot, at least, persuade myself that M. Bergson has attained it. Why should free consciousness first produce, and then, as it were, shed, mechanically determined matter? Why, having done so, should it set to work to permeate this same matter with contingency? Why should it allow itself to be split up by matter into separate individualities? Why, in short, should it ever have engaged in that long and doubtful battle between freedom and necessity which we call organic evolution?

44. Yet fully granting that, in the present state of our knowledge, every metaphysic must be defective, we cannot accept any particular metaphysic without some grounds of belief, be they speculative, empirical, or practical; and the question therefore arises—On what grounds are we asked to accept the metaphysic of M. Bergson?

This brings us to what is perhaps the most suggestive, and is certainly the most difficult, portion of his whole doctrine—I mean his theory of knowledge. The magnitude of that difficulty will be at once realised when I say that in M. Bergson's view not reason, but instinct, brings us into the closest touch, the directest relation, with what is most real in the Universe. For reason is at home, not with life and freedom, but with matter, mechanism, and space—the

waste products of the creative impulse. We need not wonder, then, that reason should feel at home in the realm of matter; that it should successfully cut up the undivided flow of material change into particular sequences which are repeated, or are capable of repetition, and which exemplify 'natural laws'; that it should manipulate long trains of abstract mathematical inference, and find that their remotest conclusion fits closely to observed fact. For matter and reason own, according to M. Bergson, a common origin; and the second was evolved in order that we might cope successfully with the first.

Instinct, which finds its greatest development among bees and ants, though incomparably inferior to reason in its range, is yet in touch with a higher order of truth, for it is in touch with life itself. In the perennial struggle between freedom and necessity which began when life first sought to introduce contingency into matter, everything, it seems, could not be carried along the same line of advance. Super-consciousness was like an army suddenly involved in a new and difficult country. If the infantry took one route, the artillery must travel by another. The powers of creation would have been overtaken had it been attempted to develop the instinct of the bee along the same evolutionary track as the reason of the man. But man is not, therefore, wholly without instinct, nor does he completely lack the powers of directly apprehending life. In rare moments of tension, when his whole being is wound up for action, when memory seems fused with will and desire into a single impulse to *do*,—*then* he knows freedom, *then* he touches reality, *then* he consciously sweeps along with the advancing wave of Time, which, as it moves, creates.

However obscure to reflective thought such mystic utterances may seem, many will read them with a secret sympathy. But, from the point of view occupied by M. Bergson's own philosophy, do they not suggest questions of difficulty? How comes it that if instinct be the appropriate organ for apprehending free reality, bees and ants, whose range of freedom is so small, should have so much of it? How comes it that man, the freest animal of them all, should specially delight himself in the exercise of reason, the faculty brought into existence to deal with matter and necessity? M. Bergson is quite aware of the paradox, but does he anywhere fully explain it?

This is, however, comparatively speaking, a small matter. The difficulties which many will find in the system, as I have just described it, lie deeper. Their first inclination will be to regard it as

a fantastic construction, in many parts difficult of comprehension, in no part capable of proof. They will attach no evidential value to the unverified visions attributed to the Hymenoptera, and little to the flashes of illumination enjoyed by man. The whole scheme will seem to them arbitrary and unreal, owing more to poetical imagination than to scientific knowledge or philosophic insight.

Such a judgment would certainly be wrong ; and if made at all, will, I fear, be due in no small measure to my imperfect summary. The difficulties of such a summary are indeed very great, not through the defects but the merits of the author summarised. The original picture is so rich in suggestive detail that adequate reproduction on a smaller scale is barely possible. Moreover, M. Bergson's "Evolution Créatrice" is not merely a philosophic treatise, it has all the charms and all the audacities of a work of Art, and as such defies adequate reproduction. Yet let no man regard it as an unsubstantial vision. One of its peculiarities is the intimate, and, at first sight, the singular, mingling of minute scientific statement with the boldest metaphysical speculation. This is not accidental ; it is of the essence of M. Bergson's method. For his metaphysic may, in a sense, be called empirical. It is no *a priori* construction, any more than it is a branch of physics or biology. It is a philosophy, but a philosophy which never wearies in its appeals to concrete science.

45. Even the most abstruse and subtle parts of his system make appeal to natural science. Consider, for example, the sharp distinction which he draws between the operations of mechanism and reason on the one side, creation and instinct on the other. Reason, analysing some very complex organ like the eye and its complementary nervous structure, perceives that it is compounded of innumerable minute elements, each of which requires the nicest adjustment if it is to serve its purpose, and all of which are mutually interdependent. It tries to imagine external and mechanical methods by which this intricate puzzle could have been put together—e.g. selection out of chance variations. In M. Bergson's opinion, all such theories—true, no doubt, as far as they go—are inadequate. He supplements or replaces them by quite a different view. From the external and mechanical standpoint necessarily adopted by reason, the complexity seems infinite, the task of co-ordination impossible. But looked at from the inside, from the position which

creation occupies and instinct comprehends, there is no such complexity and no such difficulty. Observe how certain kinds of wasp, when paralysing their victim, show a knowledge of anatomy which no morphologist could surpass, and a skill which few surgeons could equal. Are we to suppose these dexterities to be the result of innumerable experiments somehow bred into the race? Or are we to suppose it the result, e.g., of natural selection working upon minute variation? Or are we to suppose it due to some important mutation? No, says M. Bergson; none of these explanations, nor any like them, are admissible. If the problem was one of mechanism, if it were as complicated as reason, contemplating it from without, necessarily supposes, then it would be insoluble. But to the wasp it is not insoluble; for the wasp looks at it from within, and is in touch, through instinct, with life itself.

This enumeration is far from exhausting the biological arguments which M. Bergson draws from his ample stores in favour of his views on the beginnings of organic life. Yet I cannot feel that even he succeeds in quarrying out of natural science foundations strong enough to support the full weight of his metaphysic. Even if it be granted (and by naturalistic thinkers it will not be granted) that life always carries with it a trace of freedom or contingency, and that this grows greater as organisms develop, why should we therefore suppose that life existed before its first humble beginnings on this earth, why should we call in super-consciousness? M. Bergson regards matter as the dam which keeps back the rush of life. Organise it a little (as in the Protozoa)—i.e. slightly raise the sluice—and a little life will squeeze through. Organise it elaborately (as in man)—i.e. raise the sluice a good deal—and much life will squeeze through. Now this may be a very plausible opinion if the flood of life be really there, beating against matter till it forces an entry through the narrow slit of undifferentiated protoplasm. But is it there? Science, modestly professing ignorance, can stumble along without it; and I question whether philosophy, with only scientific data to work upon, can establish its reality.

In truth, when we consider the manner in which M. Bergson uses his science to support his metaphysic, we are reminded of the familiar theistic argument from design, save that most of the design is left out.

parently inexplicable may find an explanation within the narrowest limits of natural science. Mechanism may be equal to playing the part which a spiritual philosophy had assigned to consciousness. When, therefore, M. Bergson tells us that the appearance of an organ so peculiar as the eye in lines of evolution so widely separated as the molluscs and the vertebrates implies not only a common ancestral origin, but a common *pre-ancestral* origin; or when he points out how hard it is to account for certain most complicated cases of adaptation by any known theory of heredity, we may admit the difficulty, yet hesitate to accept the solution. We feel the peril of basing our beliefs upon a kind of ignorance which may at any moment be diminished or removed.

Now, I do not suggest that M. Bergson's system, looked at as a whole, suffers from this kind of weakness. On the contrary, I think that if the implications of his system be carefully studied, it will be seen that he draws support from sources of a very different kind, and in particular from two which *must* be drawn upon (as I think) if the inadequacy of naturalism is to be fully revealed.

The first is the theory of knowledge. If naturalism be accepted, then our whole apparatus for arriving at truth, all the beliefs in which that truth is embodied, reason, instinct, and their legitimate results, are the product of irrational forces. If they are the product of irrational forces, whence comes their authority? If to this it be replied that the principles of evolution, which naturalism accepts from science, would tend to produce faculties adapted to the discovery of truth, I reply, in the first place, that this is no solution of the difficulty, and wholly fails to extricate us from the logical circle. I reply, in the second place, that the only faculties which evolution, acting through natural selection, would tend to produce, are those which enable individuals, or herds, or societies to survive. Speculative capacity—the capacity, for example, to frame a naturalistic theory of the Universe—if we have it at all, must be a by-product. What nature is really concerned with is that we should eat, breed, and bring up our young. The rest is accident.

Now M. Bergson does not directly interest himself in this negative argument, on which I have dwelt elsewhere. But I think his whole constructive theory of reason and instinct is really based on the impossibility of accepting blind mechanism as the source—the efficient cause—of all our knowledge of reality. His theory is difficult. I am not sure that I am competent either to explain or to criticise it. But it seems to me clear that, great as is the width

of scientific detail with which it is illustrated and enforced, its foundations lie far deeper than the natural sciences can dig.

But it is not only in his theory of knowledge that he shows himself to be moved by considerations with which science has nothing to do. Though the point is not explicitly pressed, it is plain that he takes account of 'values,' and is content with no philosophy which wholly ignores them. Were it otherwise, could he speak as he does of 'freedom,' of 'creative will,' of the 'joy' (as distinguished from the pleasure) which fittingly accompanies it? Could he represent the Universe as the battle-ground between the opposing forces of freedom and necessity? Could he look on matter as 'the enemy'? Could he regard mechanism, determinateness, all that matter stands for, as not merely in process of subjugation but as things that *ought* to be subdued by the penetrating energies of free consciousness?

This quasi-ethical ideal is infinitely removed from pure naturalism. It is almost as far removed from any ideal which could be manufactured out of empirical science alone, even granting what naturalism refuses to grant, that organised life exhibits traces of contingency. M. Bergson, if I correctly read his mind, refuses—I think, rightly refuses—to tolerate conceptions so ruinous to 'values' as these must inevitably prove. But can his own conception of the universe stand where he has placed it? By introducing creative will behind development, he has no doubt profoundly modified the whole evolutionary drama. Matter and mechanism have lost their pride of place. Consciousness has replaced them. The change seems great; nay, it is great. But if things remain exactly where M. Bergson leaves them, is the substantial difference so important as we might at first suppose? What is it that consciousness strives for? What does it accomplish? It strives to penetrate matter with contingency. Why, I do not know. But concede the worth of the enterprise. What measure of success can it possibly attain? A certain number of organic molecules develop into more or less plastic instruments of consciousness and will; consciousness and will, thus armed, inflict a few trifling scratches on the outer crust of our world, and perhaps of worlds elsewhere, but the huge mass of matter remains and must remain what it has always been—the undisputed realm of lifeless determinism. Freedom, when all has happened that can happen, creeps humbly on its fringe.

I suggest, with great respect, that in so far as M. Bergson has devised his imposing scheme of metaphysic in order to avoid the

impotent conclusions of Naturalism, he has done well. As the reader knows, I most earnestly insist that no philosophy can at present be other than provisional ; and that, in framing a provisional philosophy, 'values' may be, and must be, taken into account. My complaint, if I have one, is not that M. Bergson goes too far in this direction, but that he does not go far enough. He somewhat mars his scheme by what is, from *this* point of view, too hesitating and uncertain a treatment.

It is true that he has left naturalism far behind. His theory of a primordial super-consciousness, not less than his theory of freedom, separates him from this school of thought as decisively as his theory of duration, with its corollary of an ever-growing and developing reality, divides him from the great idealists. It is true also that, according to my view, his metaphysic is religious : since I deem the important philosophic distinction between religious and non-religious metaphysic to be that God, or whatever in the system corresponds to God, does in the former *take sides* in a moving drama, while, with more consistency, but far less truth, he is, in the non-religious system, represented as indifferently related to all the multiplicity of which he constitutes the unity.

Now, M. Bergson's super-consciousness does certainly take sides, and, as we have seen, his system suffers to the full from the familiar difficulty to which, in one shape or another, all religious systems (as defined) are liable, namely, that the evils or the defects against which the Creator is waging war are evils and defects in a world of His own creating. But as M. Bergson has gone thus far in opposition both to naturalistic and to metaphysical orthodoxies, would not his scheme gain if he went yet further ? Are there no other 'values' which he would do well to consider ? His super-consciousness has already some quasi-æsthetic and quasi-moral qualities. We must attribute to it joy in full creative effort, and a corresponding alienation from those branches of the evolutionary stem which, preferring ease to risk and effort, have remained stationary, or even descended in the organic scale. It may be that other values are difficult to include in his scheme, especially if he too rigorously banishes teleology. But why should he banish teleology ? In his philosophy super-consciousness is so indeterminate that it is not permitted to hamper itself with any purpose more definite than that of self-augmentation. It is ignorant not only of its course, but of its goal ; and for the sufficient reason that, in M. Bergson's view, these things are not only unknown, but unknowable. But is there

not a certain incongruity between the substance of such a philosophy and the sentiments associated with it by its author? Creation, freedom, will—these doubtless are great things; but we cannot lastingly admire them unless we know their drift. We cannot, I submit, rest satisfied with what differs so little from the haphazard; joy is no fitting consequent of efforts which are so nearly aimless. If values are to be taken into account, it is surely better to invoke God with a purpose, than supra-consciousness with none.

Yet these deficiencies, if deficiencies they be, do little to diminish the debt of gratitude we owe to M. Bergson. Apart altogether from his admirable criticisms, his psychological insight, his charms of style, there is permanent value in his theories. And those who, like myself, find little satisfaction in the all-inclusive unification of the idealist systems; who cannot, either on rational or any other grounds, accept naturalism as a creed, will always turn with interest and admiration to this brilliant experiment in philosophic construction, so far removed from both.

Berkeley.

[*The extracts under this heading are taken from the article "Bishop Berkeley's Life and Letters," contributed to the "National Review," March and April, 1883.*]

47. Berkeley's chief title to fame must always rest on his philosophy. It is as a descendant in the true line of succession from Locke to the modern schools of thought, which are either a development of Locke's principles or a reaction against that development, that he is, and that he deserves to be, chiefly remembered. Yet his life and character had for his contemporaries, and may have for us, an interest quite apart from the details of metaphysical discussion. We may look at him, as they looked at him, not principally as the successor of Locke and the predecessor of Hume, as the almost impersonal author of a subtle philosophical theory, but as the worthy associate of the men who rendered the first fifty years of the eighteenth century illustrious in English literature, as an Irish patriot, as an American philanthropist, as a religious controversialist, as a man of delightful character and converse, simple, devoted, and unworldly. Though it be true, therefore, that—philosophy apart—Berkeley effected little; though he did not write enough to rank in the first class among men of letters, nor perform enough to be counted a successful man of action; though he was neither a great social power, nor a great missionary, nor a great ecclesiastic, it is also true that scarce any man of his generation touched contemporary life at so many points. In reading his not very voluminous works we find ourselves not only in the thick of every great controversy—theological, mathematical, and philosophical—which raged in England during the first half of the eighteenth century, but we get glimpses of life in the most diverse conditions; in the seclusion of Trinity College, Dublin, in the best literary and fashionable society in London, among the prosperous colonists of Rhode Island, among the very far from prosperous

peasants and squireens of Cork. And all this in the company of a man endowed with the subtlest of intellects, lit up with a humour the most delicate and urbane.

48. It must never be forgotten that, in his opposition to the new ideas, he did not represent the age that was going out, but (though in a peculiar manner) the age that was coming in. He was not engaged in the last desperate stand made along the old lines, with the old argumentative weapons, against invading innovations. In so far as he opposed the new conclusions, it was in the spirit of the new premises. If he attacked Locke, it was not as a disciple of the schoolmen. If he criticised Newton, it was not as a disciple of Descartes. And, though his orthodoxy was beyond suspicion, we may look through his theological writings in vain for that learned discussion of dogmatic subtleties which was dear to the seventeenth century, of which his own contemporaries produced more than one admirable example, but which was on the whole alien to the taste of the eighteenth century, whether believing or sceptical, whether lay or clerical. It would be a more natural, but not a less important error, to suppose that Berkeley's habits of thought¹ anticipated something of the spirit of the nineteenth century. He is, as every one knows, an 'idealist'; and it might be concluded that his speculations had something of the imaginative vagueness which characterised the idealistic reaction against the shallow rationalism of the pre-revolutionary period. But it is not so. Berkeley emphatically belonged to his age. The same impatience of authority in matters of speculation, the same passion for clearness and simplicity, the same dislike of what was either pedantic on the one side or rhetorical on the other, the same desire to clothe his thoughts in an agreeable literary dress, is found in him as in any French philosopher who undertook to acquaint admiring *salons* with the latest phases in the emancipation of reason. His creed, indeed, was different, as were his aims, but he belonged to the same century, intellectually as well as chronologically.

49. Philosophy is nearly as likely to be done well in early as in later life. It needs neither profound knowledge of human nature, nor that superficial acquaintance with the ways of mankind

¹ From all these remarks I exclude the "Siris," the work of his last years.

which goes by the name of 'knowledge of the world'. It is wholly independent of experience, and nearly independent even of book learning. It scarcely requires, therefore, for its successful cultivation any of the accomplishments for the full development of which Time is a necessary condition. What it demands from its successful votaries is the instinct which tells them where, along the line of contemporary speculation, that point is to be found from which the next advance may best be made, and that speculative faculty which is as much a natural gift as an aptitude for mathematics or a genius for poetry. Should they lack the first of these requisites, they will be left, whatever their ability, like Berkeley's contemporaries, Clarke and Malebranche, out of the main current of thought in a kind of philosophical back-water; should they lack the second, they have made a mistake as to their true calling, which neither industry nor learning will do anything to remedy. Berkeley possessed both gifts. We need not wonder, therefore, that like many other philosophers—like Hume, Fichte, Schelling, and Schopenhauer—he produced valuable original work at an early age. That he produced so little in his maturer years is doubtless due in part to temperament, and to the distractions of an unsettled and wandering life; but it must also be largely attributed to the almost total absence of intelligent criticism, either from friends or foes, under which Berkeley suffered throughout the whole period during which such criticism might have roused him to make some serious effort to develop or to defend the work of his youth.

50. Berkeley's early work is distinguished not only by the admirable qualities of originality, lucidity, and subtlety, but by a less excellent characteristic, which I can only describe as a certain *thinness* of treatment. At the time when he produced these immortal speculations he had read little, and felt little. No experience of the weary entanglement of concrete facts had yet suggested to him that a perfect solution of the problem of the universe is beyond our reach. He easily exaggerated, therefore, the scope of his discovery, and his youthful self-confidence found no difficulty in believing that, by a simple correction in our theory of perception, all puzzles would be unravelled and all mysteries made plain. Very different was his attitude of mind when, richer by thirty years of experience and study, he gave to the world the fragments of his later Philosophy; and the difference is perceptible on the most cursory comparison of his works at the two dates.

The Bible.

51. If I rightly caught the figures put before us by Lord Northampton, the languages into which the Bible, or some portion of the Bible, has been translated, now amount to something very near, if they do not actually reach, the figure of 400. Putting religion aside, what a benefit to philology and to the allied sciences that great work is. But I need not say that it is not philology that has brought us here to-day. It is not the contribution to the science of man which has filled this room and which has induced the people of this country to subscribe to the work of this Society so largely in the past, and which will, I hope, induce them to subscribe with even greater liberality to its ever-growing needs in the future. It is not science; it is religion that is the cause of our assembling here to-day. That is the true motive force which must lie behind any effectual work which this Society is to do, any effective appeal which it is likely to make to our countrymen.

Now it is unnecessary—it is almost an empty form—to argue to such an assembly as this the benefit which religion is to mankind, and the benefit which the Bible is to religion. Those are the commonplaces of the creed, probably, I should imagine, of every man and every woman whom I am addressing here to-day. But we have to remember that that is not the universal view even of those who are in no sense to be described as hostile to the religion which we profess, and I should like for a moment—it will only be for a moment—to imagine myself addressing an audience not composed like the present one, but composed of persons differing in many important particulars from those to whom I speak at the present moment. Supposing my objector were to say: This Society, whose philanthropic objects are not to be doubted, whose enthusiasm and whose growth are shown by the magnitude of its work, was founded under very different conditions from those which prevail at the present time. It was founded a hundred years ago, at a period when it can hardly be said that the religion and civilisation of Europe had really come into direct, permanent, political, dominant intercourse with the great literary religions of the world. Missionary effort, I suppose, in the eighteenth century chiefly had in view the uncivilised aborigines of America. China was then a field for missionary enterprise which hardly came within the European ken, in the sense in which it has at the present time; and India was a field for more or less successful commercial speculation and incipient conquest. Since then (the

imaginary objector may say) you have had to deal with great religions going back into a past far antecedent to the Christian era, with a literature of their own, with a philosophy of their own, with a very learned, and, in some cases, a very cultivated priesthood, and with systems of metaphysics which rival, if they do not surpass in their subtlety, the systems that have prevailed in the West. How do you expect that any great effect is to be produced upon these religions by the mere distribution of the Old and New Testaments?

Well, this is really more a missionary problem connected with the propagation of the Bible over the areas to which I am alluding, and it is a problem to which, I feel convinced, those who have to deal with missionary effort are devoting their minds. I think we have to realise, and I am sure the leaders of missionary effort more and more do realise, that you must have differentiation and division of labour in these cases as you have in other departments of activity, and that a different kind of culture, a different kind of training, is required for those missionaries who have to deal with the ancient literary and cultivated religions of which I have been speaking, than for those whose efforts may be exerted, and are most fruitful among the less advanced and more savage tribes of America or of Africa.

But perhaps my imaginary objector would raise another point. He would say: If you put yourselves back into the position of the founders of this Society, they started their efforts at a time when Biblical criticism was in its infancy. In the hundred years which have elapsed since within half a mile of where I am speaking this Society came to birth, our collection of sacred books has been subjected to an examination so minute, to a criticism so learned, to such a comparison with other literatures of similar dates, that no doubt the scholar of to-day looks at the Bible in a somewhat different setting from that in which a scholar of 1804 did, or could, look at it. And my critic would ask: Does not this, in some respects, chill your enthusiasm? Does not this diminish the ardour with which you desire to spread the knowledge of the Bible?

I think the fact is to be admitted; the conclusion is to be repudiated with all the strength that we possess. In my view—whatever that view may be worth—the ever-increasing knowledge which we have not only of Israel, but of all the nations who influenced or were influenced by the Jewish people, our knowledge of the texts, our studies in the history of the Roman Empire immediately subsequent to the beginning of the Christian era, these things, so far from rendering the Bible less valuable to us or less interesting to us from a religious point of view, greatly augment in every respect the value which it must have for an educated community. These researches make it far more a living record of the Revelation of God to mankind than it ever was or ever could be to those who, from the nature of the case, had no adequate conception of the circumstances under which that Revelation occurred, or the peoples to whom it was revealed. And I most truly think that not only is the Bible now, what it has always

been to the unlearned, a source of consolation, of hope, of instruction, but it is to those who are more learned—but not probably nearer the kingdom of heaven—it is to them augmented in interest, and not diminished, a more valuable source of spiritual life now than it could ever have been in the precritical days.

If I am right—and I believe I am—what value, what infinite value the work of a Society like this must have. In the first place, for us living here in Great Britain, absorbed, and too much absorbed with our religious differences, is it not something to be able to meet together in a cause intimately connected with religion, but in no sense depending on those sectarian differences? It must increase charity, and it must widen our outlook. There is always a danger in regard to everything, whether it be politics or literature or religion, that those who live in a narrow circle take a parochial view of the subjects with which they are concerned. Well, there is nothing parochial about this Society. The world is its field. The four hundred millions of human beings to whom Lord Northampton referred, who have as yet no opportunity of seeing a single word of the Scriptures in their own tongue, they carry us away—do they not?—from any small and petty differences which may divide us. I do not wish to deny the reality of those differences. I do not wish to minimise their importance. But surely when we are brought face to face by a Society like this with the problem of spreading our religion over the whole globe, when we have brought to our imagination the variety of races, the variety of civilisations, the variety of cultures with which this Society is immediately concerned, then if that prospect does not, and cannot, make us wholly forget those points of difference which divide us one from another, at all events it may help us to put those differences in their right perspective. . . . [1903.]

Robert Burns.

52. It is a singular fact that within a comparatively brief number of months I have had my attention directed to no less than four ceremonials connected with great literary men, and all these men were Scotchmen. There was the Burns celebration of last July; there was the most interesting ceremony which took place in London, at which I was present, in which the memory of Carlyle was the subject dealt with, in connection with the acquisition of the house in which he lived, in perpetual memory of the work which he did for literature; there was the Stevenson meeting in Glasgow—at which, unluckily, I could not be present, although I earnestly desired to be; and there was the meeting connected with the memorial put up to Sir Walter Scott in Westminster Abbey, a meeting in which I had the great honour of taking part. Now these four men whose names have thus within a very brief space come up in this public manner for public recognition before different audiences in the United Kingdom, were, as I have said, all Scotchmen, were in a manner all men who were not only Scotchmen by birth, but Scotchmen to the core—by training, by education, by love of their country. I do not suppose that four such men of common origin, and in a sense of common training, I do not suppose that four more different geniuses could be found in the literature of any other country.

Of all these four men without doubt the one who I will not say is the greatest—for these comparisons are impossible—but the one who is nearest to the hearts of the great mass of his fellow-countrymen is Robert Burns. . . . Of the four great Scotchmen thus recently celebrated, all of whom wrote and lived within little more than the last hundred years, Burns, the first in time of the four, is the one who at this moment holds the first place in the hearts of the great mass of Scotchmen. I suppose that if we all set to work to account for this phenomenon we should find that like most other phenomena more than one cause contributes to it. It seems to me, indeed, that not only does Robert Burns hold a peculiar and unique position in the minds of Scotchmen, and among Scotchmen of letters, but that he holds a unique position, so far as I understand the matter, if we survey the whole field of modern literature; for I know no other case—I do not speak dogmatically upon the point—I do not recall any other case in which we can say with the same confidence that a poet has occupied a place, and a great place, in universal literature, and that he is also the daily companion of hundreds of thousands of men and women who cannot be described as belonging to a

class who make an occupation of literary study. I imagine that this unique fact, if unique fact it be, is in part due to the circumstance that Burns dealt so largely with those great elementary feelings, passions, and experiences which are common to every human being, whether he be literary or whether he be not literary, whatever his occupation in life may be, whatever be the labours which engross his time. For his best poems after all—not all his poems, but the bulk of his best poems—deal with such things as love and friendship, the joys of family life, the sorrows of parting—all things which come within the circle of our daily experience. And he dealt with them simply as they are, in a manner which comes home to every man and every woman, which readily falls in with, which readily echoes, their own intimate sense of reality, which speaks to them, therefore, in tones of sympathy and of consolation, and which is present with them in all the experiences of their daily life. And while this is the character of the subjects of which Burns treated, he treated them at a time and in a manner which gives him an absolutely unique position in the development of British literature, for he was unconscious of his mission—he was unconscious of the great work which he was to initiate and foreshadow. He was the first of those great revolutionary writers—revolutionary I mean in the literary sense of the word—who made the early years of the present century so rich in instruction and so rich in genius. He was the precursor of Wordsworth and Scott, of Byron, Shelley, and Keats: but while he was their precursor, while he heralded this great change in the literary fashions of his country, he spoke in tones which have deeply sunk into the popular mind, which appeal to people to whom the names of Wordsworth and Shelley, of Byron and Keats are names, but little else.

I suppose I ought to add, in estimating this double quality of Burns' fame—I mean the popular quality and the universal literary quality—one fact which is obvious enough, but which has doubtless had its influence—namely, that he wrote in our Scotch vernacular. Now, it is necessary in a poet who is to occupy the position which Burns occupied among his countrymen, that he should speak the language of his countrymen; it is necessary that every man should feel not that he is reading a mere literary construction, but that the words which the poet uses are familiar words which he immediately understands, and which carry with them a wealth of association without which poetry is but a vague and empty sound. But the misfortune of popular poets has often been that while they spoke the vernacular of their country, this vernacular was so restricted in its area that the great literary heart, the great literary world which is confined to no country and to no people, was incapable of appreciating what they said, except through the imperfect medium of translation; and, as we all know, translation, however admirable, and however excellent, and however painstaking, never has, never can, and never will, preserve the inmost life and essence of the work of art with which it deals. The fate of Robert Burns, however, was happier than

the fate of those of whom I speak, for though he spoke and wrote in our Scotch vernacular, that vernacular is itself but a form of the great language which is now the birth-tongue of more people born into the world than any other literary language whatever. But while appealing, therefore, as only one writing the Scotch vernacular could appeal to the mind and feelings of Scotchmen, the great mass of the English-speaking world do not feel towards him as a foreigner must feel towards a language which he has not spoken from his youth. Rather do they feel, though here and there there may be words which are strange to them, that the language is after all the language of their own childhood, and they can cherish Robert Burns as a poet of their own language, a poet speaking their own tongue. One other cause may perhaps have done something to add to the universal character and world-wide fame which our poet enjoys, and seems likely in ever-increasing measure to enjoy in the future. That cause is that in every part of the world you will find Scotchmen, and that wherever you do find Scotchmen you will find people who are making their presence felt in the communities in which they live. And wherever you find a Scotchman you will, I am glad to think, also find people who are by no means prepared to allow a careless or unthinking world to forget the glories of their native land. Therefore it is that the fame of Burns has spread wherever Scotchmen have spread, and that there is a kind and degree of worship paid to his genius such as I believe is paid to the genius of no other poet of any kind or of any country. [1897.]

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Cambridge University.

53. Unless I am led astray by too partial an affection for my own University, there is nowhere to be found, in any corner of the world, a spot with which have been connected, either by their training in youth, or by the labours of their maturer years, so many men eminent as the originators of new and fruitful physical conceptions. I say nothing of Bacon, the eloquent prophet of a new era; nor of Darwin, the Copernicus of Biology; for my subject to-day is not the contributions of Cambridge to the general growth of scientific knowledge: I am concerned rather with the illustrious line of physicists who have learned or taught within a few hundred yards of this building;—a line stretching from Newton in the seventeenth century, through Cavendish in the eighteenth, through Young, Stokes, Maxwell, in the nineteenth, through Kelvin, who embodies an epoch in himself, down to Rayleigh, Larmor, J. J. Thomson, and the scientific school centred in the Cavendish Laboratory, whose physical speculations bid fair to render the closing years of the old century and the opening years of the new as notable as the greatest which have preceded them. . . . [1904.]

54. I yield to no man in my loyal devotion to the University of which Charles Darwin was one of the greatest ornaments. I think it may well thrill the minds of every son of Cambridge to reflect on that part which his University has played in leading great movements, those great cosmic movements whose effects are never obliterated by the progress of science, or the development of discovery, but which remain as perpetual landmarks in the intellectual history of mankind. This day and on preceding days we are concerned with Charles Darwin. Charles Darwin, though one of the greatest of men of science the world has seen, has, even in Cambridge, great rivals. Will it be erroneous to say that much of the best scientific thought of the eighteenth century was devoted to developing those great mechanical ideas which the world owes to Newton? During that century men largely spent their time in developing ideas the origin of which we can with perfect certainty trace to the greatest ornament of our University, and perhaps the greatest man the world has ever seen. Is it not true that the

greatest scientific minds of the nineteenth century were largely occupied with another allied set of problems, those connected with the character of the ether and the energies of which ether is the vehicle ; and that in Cambridge we may claim to have educated Young, Kelvin, Maxwell, Stokes—I do not carry the catalogue into the realm of the living—men whose names will for ever be associated with that vast expansion of our knowledge of the material universe, associated with the theory of the ether, the theory of electricity, of light and that great group of allied subjects. If we have not in that department a clear and undoubted lead, which Cambridge men may surely claim that Newton gave in another department, at least we have borne our fair share, and more than our fair share, of the heat and burden of scientific investigation. And we are now occupied with pardonable pride in turning our attention to one who in another wholly different sphere of scientific investigation has for all time imprinted in unmistakable lines his unmistakable signature upon the whole development of future thought.

[1909.]

Cancer Research.

55. I cannot imagine that anybody who has read the Report with attention can do otherwise than admire the rapidity with which the great work of research has been organised, and the breadth of view which already characterises those who have made themselves responsible for the direction in which the research is to take place.

I am aware that not merely large numbers of the public, but large numbers of the medical profession also, take so pessimistic a view of this undoubtedly difficult subject, that they seem almost to think that the time, the money, and the labour which must necessarily be expended before any adequate results are obtained are in all probability likely to be thrown away. I cannot agree with that. I am sure we ought not to agree with any prophecies so pessimistic, so discouraging, so contrary, after all, to the progress of science, the progress of medicine, the progress of therapeutics. After all, if we look at what the surgeon and doctor can accomplish at the beginning of the twentieth century and compare it with what could be accomplished by medical skill and science a hundred years ago, we have no cause to doubt that the progress of medicine will be at least as rapid in the future as it has been in the past, and that as in 1800 problems and operations which seemed insoluble and impossible are now matters of daily experience, so in the course of a few years we may look back upon our present state of knowledge and not only congratulate ourselves on the progress that has been made, but wonder that anybody was ever so little of faith as to doubt that such progress was possible. For my own part, I have taken comfort and consolation from one of the things that seems most to discourage some of those who are interested in these points. I derive consolation from the very breadth and sweep of the inquiry which has been undertaken by this Association. Isolated endeavour has now been going on in every hospital and by every medical practitioner in every civilised country in the world for several years past. What is wanted is, in the first place, co-operation between the different workers in this field; not merely co-operation among those engaged in combating to the best of their ability as practitioners the ravages of this disease, but of all those who by their scientific and biological attainments can throw light upon that subject which is still wrapped in absolute darkness—namely, the cause and origin of the disease itself, and the cause of its special distribution among age, sex, and locality.

I notice, with especial gratification, that those responsible for the direction of these researches have regarded it as one of their first duties not merely to consider the manifestations of the disease as it shows itself in man, but the manifestations of the disease as it shows itself also in the lower animals. I believe it will come as a surprise to a large number even of the instructed public to know the degree in which not only mammals, not only the higher orders of the lower animals, but even species still lower in the scale of organisation, suffer from a disease which is not only similar in its general characteristics to that from which the human race has suffered so greatly, but which seems to be absolutely identical in all its peculiarities. The wider sphere of comparative study thus opened cannot but show, I think, great results, and enable us to form some estimate of the cause and course of this disease; and some knowledge of the cause and course of this disease must, after all, be the basis of any reasonable and rational attempt to find a modification or a cure. It is true that happy experiments, the inspiration of some fortunate man of genius, may, in anticipation of these wider generalisations, put us on the track of some conclusive, some effective remedy. May it be so: but we cannot count upon that, and, in any case, the work of this fortunate genius will inevitably be greatly aided by the wider scientific generalisations which the course of investigation and experiment now entered upon must inevitably induce.

[1903.]

56. The number of quack remedies, the number of perfectly futile remedies which have from time to time been suggested, sometimes by those who were ignorant and sometimes by those who only desired to make money out of other people's ignorance, has been so great that no one can wonder at the natural impatience with which the trained and scientific practitioner looks at most of those supposed cures; and, indeed, I fear that we must anticipate that the vast majority of them will not bear any examination. But undoubtedly the proper spirit in which we should enter into these investigations is not to reject, hastily or impatiently, anything that has even a *prima facie* right to be carefully and critically considered, but to see that the examination into its merits shall be conducted in a perfectly and impartially scientific manner. [1903.]

57. I suppose there were persons who imagined that you had only to start a fund with a large number of competent workers to be able to find some immediate method of dealing with the great scourge of cancer—a scourge the magnitude and severity of which, though not apparently increasing, is being more and more brought home to us by the improvements of statistics and the improvements of medical diagnosis. But, surely, those expectations of an immediate discovery of some external remedy, so

to speak, some accurate and active remedy for this disease, did not take sufficient account of the only means by which we can really deal with these great therapeutical problems, which must be dealt with as part of a great biological whole. If anybody considers, for instance, what has been done in dealing with that enormous class of diseases which we now know to be due to microbic invasion, they will see that it was not done by any method analogous, for instance, to the accidental discovery of quinine as a prophylactic against certain kinds of fever, but that on the contrary, all our discoveries are due to a broad, scientific outlook, which has produced unexpected conclusions and results in every kind of different field, apart even from human pathology. Whoever would have suspected, only within the lifetime of myself and others who are listening to me, that we should see some kind of common cause in such utterly different things as the production of alcohol, the production of pearls, and the production of whooping-cough; and yet I suppose our knowledge of how all those very different results have come about is really due to investigations into the actions of microscopic organisms in various fields acting in very different ways. The public ought to remember that all that has been done in tropical medicine, in vaccine therapy, all the triumphs which have been won, and the much greater triumphs which are going to be won, are based upon this broad investigation into great scientific issues. . . . [1910.]

58. Now, let it be noticed that without our being able to observe relatively short-lived animals, it is almost impossible, in fact it is quite impossible, to arrive at any conclusions as to the influence of heredity. The staff who carry out our investigations have set systematically to work to make these investigations into heredity in connection with short-lived animals, and the result, surely, is of the utmost importance, for I gather that they have arrived at the conclusion that the question of heredity in connection with cancer is almost negligible. I do not know that I may put it higher than that. At all events, nothing has so far clearly come out of experiments conducted on a large scale which should lead us to believe that heredity plays a large part. That, I think, is a fairly safe statement, is it not? If that statement be not unduly incautious, it points—it indicates, at all events—that it may prove that as these malignant tumours are not due mainly to hereditary influences, they are due to what we may very roughly, and sufficiently accurately for this purpose, describe as the accidents of life, or to causes which, at all events, are not inherent and innate in the organism at birth: and certainly the investigations of the Fund go to show that there are causes which undoubtedly do produce cancer even in the best-behaved tissues, even in the tissues which, in the case of people leading ordinary normal life, never show, or hardly ever show, any malignant growths at all.

That surely must be an indication that something can be done to prevent or to diminish cancerous growth. I do not wish in the least to put it too high. . . . [1910.]

59. If, then, we turn to the other, the more difficult, the more critical, and the more important problem of how malignant growths, when they are present, have to be dealt with, I think it would be a cruel kindness to suggest that we are even within sight of anything that can be called a new remedy for cancer. Yet surely we ought to draw encouragement from those remarkable series of investigations in which it has been shown that the growth and the spread of implanted cancer can be checked. It is quite true that no experiments hitherto made upon original tumours have given the same satisfactory results, but we cannot doubt—at least I should think it is difficult to doubt—that there must be a difference only of degree, not of kind, between the original growth and the implanted growth; and it is, therefore, surely not unduly sanguine to say that if in certain circumstances it has been found possible to deal successfully with the implanted growth, we need not abandon hope that by further extending our researches we may be able to deal also with the more virulent and refractory form of the original growth. At all events, that is the way in which it seems to strike the lay mind: but whether I shall live to see these hopes bear fruit I really cannot say. . . . [1910.]

Carlyle.

60. It would perhaps be absurd to expect that he (Carlyle), the historian and the philosopher, should be as much understood by the great mass of mankind as a poet or a writer of romance; and, indeed, I do not feel myself that I am sufficiently of the straitest sect of that great man's admirers to be able to speak worthily of him here. I hold that only those who can admire fully and freely are competent critics of great genius; and that Carlyle was a great genius, that Carlyle had in him a force and originality of nature which enabled him to speak to two generations of his countrymen with a power and a force on some of the deepest and most important subjects which can interest us, that Carlyle could do that as perhaps no man has been able to do it, is a fact which, whether we admire Carlyle or do not admire him, we must acknowledge as honest historians he succeeded in doing. . . . [1897.]

Christianity.

[See also "POSITIVISM," and "SCIENCE AND THEOLOGY".]

61. The history of the Christian Church for all these hundreds of years has been too much a history of perpetual divisions not to give occasion to every Christian man to rejoice when we have, as an almost unique case, to chronicle and rejoice over a change which is not in the direction of division but of union. I am not one of those who think it possible, or even desirable, that there should be one single ecclesiastical polity, one single form of ritual, governing and prevalent throughout the whole of Christendom. That was, indeed, the ideal of many great men in past times, just as they entertained the ideal of a great single empire, in which all Christian nations should be embraced. We know that this latter ideal is but a dream and a vision, though a noble one, and I fear, or at least I am driven to conclude, that the other ideal is probably not one which we, as reasonable men, can hope to see accomplished.

But there is a unity which we can strive for—there is a unity which, I believe, can be reached; and it is because I regard this as a step in the direction of that unity—so far as Scotland is concerned, a great step; so far as Christendom at large is concerned, an important step—that I am here among you to express our rejoicings to-night. No doubt as the differences between nations, and the constitutions and forms of government of different nations, give room for flexibility, for individual development, for variety which may, and is, I believe, on the whole a gain to civilisation—so it may be that some degree of division and difference in the polity and ritual of the Christian Church, of the universal and catholic Church, may be desirable or may be necessary: but surely up to the present time we have bought those advantages at too high a price. If it had not been for the divisions in Christendom, the Crescent would not now be floating over Constantinople. If it had not been that that calamity was due to the division between East and West—had it not been for the later divisions, which we may roughly call the divisions between North and South, how many bloody wars would have been avoided, how much bitterness of spirit, how much narrowness and loss on both sides, how much imperilling of Christian charity, how much embittering of theological discussion!

I admit, I freely and gladly acknowledge, that of late years—even, I think, within my own lifetime—I have seen a far greater increase of charity

between different denominations, a much greater desire to work harmoniously for common ends, much less jealousy, much less bitterness. But even now, with all this improvement that has gone on, how much we lose by the division of Christendom. There is infinite waste of material resources—material resources none too great, as all my friends on this platform know, to help the Churches to carry out the great work entrusted to them. There is not only great waste of material resources, there is inevitable friction and jealousy—that friction and that jealousy which seem absolutely inseparable from divided organisation, even if behind that organisation there be no deep-seated or substantial division of opinion. And in addition to those two great disadvantages of which I have spoken, there is the disadvantage that the ground of division between different denominations is always, and necessarily and by the very nature of the case, exaggerated out of all proportion to its real importance. These dividing frontiers, these dividing lines between different denominations are like the frontier separating two co-terminous but hostile States, and as you see in the case of these two States, as you see one fortress frowning against another fortress on the opposite side of the frontier, so do you see one definition of dogma erected into a great barrier on the right, and another and an opposite definition of dogma erected into a great barrier on the left; and it is to these great and costly fortresses that the attention of the two States is directed, forgetting that both States have interests which are not hostile interests, that they have common interests of civilisation and production in which each will gain by everything which the other is able to produce and to do.

We know by what course of history this unhappy state of things has been brought about. I fear that in all periods, in all ages of ecclesiastical history, theologians have been too much given to these hostile definitions. But certainly the period of Church history in which this passion for definition raged with the most uncontrollable and the most disastrous force was in that great period of religious awakening, otherwise so glorious and so beneficial, which we know in broad outline as the period of the Reformation. There appears to have been an absolute determination in theologians of every country and of every denomination, Lutheran, Calvinist, Romanist, Anglican—you may go through the whole list—and you will find that one and all, agreeing in nothing else, have agreed in this, that there should be no such thing as an open question among Christian men. These symbols of the sixteenth and seventeenth centuries are masterpieces of accurate and refined definitions. They are witnesses certainly to the ability, and, I well believe, to the earnestness and the piety of the great theologians of all schools who framed them. But they have been a source of bitter division among men who ought to have been agreed, and—the worst thing they have done—they have brought into prominence matters of division between Christian men which were as nothing, as mere

dust in the balance, compared with those great truths upon which all Christian men are agreed.

Now I hope that in this criticism it will not be thought that I have been too disrespectful to men whom I gladly recognise as great masters of theology in the past; but I am afraid that if this condemnation is in any way true, we—I mean the Scottish people—are as much open to it, or perhaps more open to it, than almost any other nation. I suppose it is because we have all got a metaphysical turn of mind, because matters of theology have, fortunately for our nation, not been left merely to the schools, to the educated, to those who make theology a profession, but have for the last three hundred years been a matter of common importance to the whole body of our people. That is a great thing, an admirable thing, a great education not merely in the narrowly religious sense, but in the broadest and most humanistic sense. No doubt, it did carry with it this disadvantage, that we Scotchmen, almost more than any other people, have been apt to take the finest definitions, and on these finest distinctions divide ourselves into hostile and opposing battalions.

[1901.]

62. Do not suppose I am an advocate for that colourless thing known as an undenominational creed—a creed, as I understand those who desire it, which shall be framed by excluding from the beliefs of a certain number of people everything in which they differ, and representing the result as that which constitutes, and ought to constitute, the true beliefs of every Christian man. I do not plead for that. I do not believe that is possible. What I do plead for is that Christian men should understand that there is a permission to differ without these differences carrying with them into ecclesiastical life, into political life, or into private life, any other difference which should make common work for a common object impossible. After all, let us remember that whatever else the Church is, it is, among other things, a practical organisation to carry out a great practical work. It is something more than an organisation to produce a body of school divinity. It is a body in which Christian men are asked to join together and work together for great religious and moral objects, and no difference of opinion which makes that co-operation impossible ought, in my opinion, to prevent Christian men from belonging to the same Church and considering that they are united ecclesiastically with their brethren. . . . [1901.]

63. I do not think that I need labour further that which I regard as the central point, the great gain, the inestimable benefit which this union has subserved. I understand that what was the United Presbyterian Church and what was the Free Church of Scotland have come together without either

of them giving up anything which they before maintained. In other words, if there were points of difference between them, those matters are now open questions in the United Free Church. That, believe me, is the sound principle, and the only principle, upon which the divisions of Christendom can be healed. Increase the number of your open questions; reverse the process so much in favour with the theologians of the sixteenth and seventeenth centuries. Do not exclude from the pale of your communion every man who differs from you on a point of criticism, on a point of Biblical interpretation, or on any of those other subjects which have been the fertile source of controversy, the well-worn and trampled battle-fields of dogmatic dispute. If that principle can sink into the mind and conscience of Christian men in all parts of the country, if, in other words, they can learn effectually the lesson which has just been taught us, for my part I do not despair of seeing a very great diminution in that which has long been a reproach to Christianity, and has, I fear, been especially a reproach to Protestant Christianity—I mean this habit of running into an infinite variety of divisions and sects upon the smallest pretext, upon what often seems, to posterity at all events, the flimsiest ground, the most technical matter upon which a dispute can possibly arise. If that lesson be learned, then I think that the leaders in this movement may congratulate themselves, not only in having done a great work within the borders of their own communions, but in having done a work the benefit of which will spread far and wide beyond those borders, and will reach, indeed, every shore, touch every Christian community, and affect the life of every Christian denomination. And if that be so, the thirty-first of October, 1900, will not only be a day famous in this part of our island and among Presbyterians,—it will be an example and a lesson whose effect no man can pretend now to estimate, whose blessings may reach, not merely to ourselves and to our children, but to our remotest posterity.

[1901.]

64. The cause I plead is the provision of religious opportunities for the great and growing population of this country of Scotland, more especially of the great cities of Scotland. You will see that it is but one aspect of that complicated, multiform, most difficult set of problems presented to us by the rapid accumulation of great populations in our urban centres. The difficulties presented by that phenomenon—a phenomenon which seems to increase as the years go by, and which, I think, is destined still to increase if this country of Britain is to grow in population in the future as it has in the past—these problems connected with the growth of the population touch us on almost every side. They touch us on the educational side, on the sanitary side, they make us anxiously to seek for some solution of the housing problem, and in every respect, connected either with the health or with the morals of the community, there can be no

question that the augmentation of our great cities is going to tax the energies—tax to the utmost the energies—of the statesman, of the philanthropist, and of the divine.

There was a time when religion, like education, or like public health at the present time, could call upon the civil power in some shape or another to support its efforts for the public good. Those times have long gone by. They will never reappear, and it is well, I think, for the cause of religion that they should never reappear. That fact throws upon us an even greater responsibility; it throws upon us the responsibility not merely of providing the means, the religious means, the religious machinery, of which these populations for whom I plead may avail themselves if they so desire it, but of creating that desire to take advantage of these methods without which no expenditure, no provision of opportunities for public worship, no teaching, no preaching, can be of any avail. We want churches, we want ministers, but besides churches and besides ministers we want congregations. We want the population, the growing populations of these great urban districts, to feel, as their fathers living in the thinly populated rural districts of Scotland felt before them, that a part, and a necessary part, of civilisation, nay, the most important part of the machinery of civilisation, are those means, those religious advantages, which it is the object of this meeting, if possible, to secure.

I believe that in every great city of the world, in every Christian Church, the difficulty that I have last spoken of, the difficulty I mean not so much of providing churches and ministers, but congregations anxious to take advantage of the churches, and what churches can do for them, that difficulty I say is universally felt. I believe it to be less felt on the whole in Scotland than elsewhere, for I believe that the need for religion has for century after century and for generation after generation sunk perhaps more deeply in the minds and consciences of the Scottish people than it has into those of most Christian populations. But the difficulty, if it be less here, is still great. I am sure if I were to ask those whom I see in abundance on the platform around me, and who are far more qualified than I am to speak upon this subject, they would say that there is necessarily, certainly—I will not say necessarily—but at all events there is a difficulty found in towns not found in our country districts equally of practically bringing within the folds of the Church those populations to whom it is the business of the Church to preach religion. No doubt many causes contribute to this lamentable and deplorable result. Partly it is no doubt the want of churches, but not wholly the want of churches. It may be, it perhaps is, the fact that from the circumstance that in a great city we are surrounded so wholly by the work of man's hands that almost everything that we look at from the hour at which we rise to the hour at which we go to rest, from the last new practical institution downwards, is contrived by men to meet the material needs of men. We are not, those of us who dwell in cities, we are not, cannot be, from day to day brought into direct contact with those great processes

of nature which speak to us of things far beyond the immediate personal, material comfort and needs of the population. These great teachers are not always at our doors. And this, it may be, is one of the reasons, this and the hurry and competition of modern life, may perhaps be counted among the reasons which produce the result of which I have spoken, and which, I fear, is to be found in every great city of the world.

But I do not wholly conceal from myself, and I do not think that with absolute candour I should conceal from you, that there are perhaps at the present time special difficulties with which the Church has had to contend in dealing with this great religious problem. For it is impossible that religion should not be intertwined and touched at many points with the general views, the general conception of the world and the history of the world. It must so touch it, and there has taken place a revolution in those views during the last hundred years which I believe has had no parallel in the recorded traditions of mankind. I think on a very different occasion, dealing with a very different subject, I once pointed out to a public meeting that we differ from the educated man of to-day, and in Scotland the educated man means men drawn from every class of society—the educated man of to-day differs in his estimate of the history of the world—the universe—I must use the larger word as you will directly see—differs in his view of the history of the universe from his grandfather or his great-grandfather, just as his grandfather or his great-grandfather differed from the remotest philosopher or speculator upon things of which they have not the remotest tradition. Just think for a moment of the change that has taken place in the last hundred years in this regard. Think of the change that has taken place in our view of the history of the starry heavens which we see above us, of the solar system of which we form a fragmentary and insignificant part, of the earth on which we live, of the organised beings which for millions of years have occupied that earth, of man, of the history of man and of his origin, of the history of religions, of the history of the Semitic religions, of the history of the Hebrews, and in a less degree of the history of our own religion, of the history of Christianity—think of the change that has taken place.

I have gone through the whole scale, and I say to that great change in our views of the history of the world every science has contributed—astronomy, geology, physics, anthropology—I will not go through the whole list, but they all, starting each from its own individual and separate data, they all have contributed their quota to what constitutes, as I have said, the greatest revolutions in secular and scientific thought of which, we believe, any record remains to us. Now, it is impossible that such a change as that which I have, in rough and general outlines, endeavoured to indicate to you—it is impossible that such a change as that will not carry with it the need and necessity, not of any change in Christian doctrine, not of any change of religion, but of a change of statement of the thought and setting in which religion is from age to age presented to the people.

You say, repeating the words which I have just used, that there is no change required in the essence, and that the change is but a change, and an insignificant change, of setting. I agree with you. But, then, how important it is that in your statement you should not make it appear as if that was an essential, one of the essential jewels in this splendid religion which is, after all, only its temporary setting; and every one of you who has had any experience of these things, either personally or by reading, must be aware—I am sure are aware—of the great harm, in some cases the incalculable harm, and the immeasurable loss which has occurred through that being represented as integral and essential which was, after all, temporary and accidental. And mark you, the danger which I have endeavoured to point out, and which I have touched on in general but I hope sufficiently clear terms, is a danger which cannot be measured by mere statistics. It does not show itself before the public eye like some great and melancholy schism rending an ancient ecclesiastical organisation. It does not show itself as, for instance, the augmentation of the population of Glasgow shows itself, by annual censuses. The people who suffer say little about it. They make no abjuration of churchmanship, it may be; they slide, by unnoticed and insensible degrees, from religion to irreligion, and the change is accompanied neither by public nor by domestic division or revolution. They simply say to themselves—‘The Christian religion may have been, probably was, a useful instrument of enlightenment and progress in times gone by, but evidently it depended upon a view of the world which science has rejected. We need not throw it roughly aside, but intellectual honesty requires us, if we have to choose, to choose science rather than religion.’ And with regret—possibly without regret—they insensibly leave the faith of their fathers, misled not as to the substance or the essence of religion, but by the mistaken statement of those whose business it was to teach it.

And if that is the state of things, believe me, the preaching of morality is not the remedy. There are now, there has been at every epoch of intellectual difficulty in the Church, those who have taken refuge from the difficulties of positive religious teaching in what they consider, in my opinion improperly consider, the perfectly safe ground of political moralising. That is not the business of a Christian Church. . . . [1901.]

65. There are some who think that the days when religion was a necessity, the first necessity of a civilised community, that these days have passed away, or are in process of passing away. So say not I. I hold precisely the opposite doctrine. To me it seems that growth of science, the enormous augmentation to our knowledge of the physical world, the growth of industry, the accumulation of wealth which exists generally in our material surroundings, the preoccupations and struggles of a great civilised community, so far from rendering religion less necessary

make it doubly imperative upon us. And I should be sorry to think that that view was not the view that would meet with something more than lip approval, something deeper than mere surface assent, from any assembly of my fellow-countrymen. That Scotland is what it is is largely through that leavening of religious life which has been one of the most prominent characteristics of our people for three centuries and more. [1901.]

66. A Church is something more than a body of more or less qualified persons engaged more or less successfully in the study of theology. It requires a very different equipment from that which is sufficient for a learned society. Something more is asked of it than independent research. It is an organisation charged with a great practical work. For the successful promotion of this work, unity, discipline, and self-devotion are the principal requisites, and, as in the case of every other such organisation, the most powerful source of these qualities is to be found in the feelings aroused by common memories, common hopes, common loyalties; by professions in which all agree; by a ceremonial which all share; by customs and commands which all obey. He, therefore, who would wish to expel such influences either from Church or State, on the ground that they may alter (as alter they most certainly will) the opinions which, in their absence, the members of the community, left to follow at will their own speculative devices, would otherwise form, may know something of science or philosophy, but assuredly knows little of human nature. . . . [1905.]

67. I do not wish to go into the niceties of argument which from time immemorial have been raised when questions of the relations between Church and State have come before either secular or ecclesiastical tribunals. In truth, the history, not merely of the Protestant Church, but of all Churches, is largely taken up with attempting to find some clear, logical, impeccable formula which shall, in unmistakable terms, determine the precise relation in which the civil power should stand to the spiritual. No such formula has ever yet been found; no such formula, in my opinion, ever will be found. And for a very plain and pregnant reason,—which is, that human society and the interests of various portions of human society are so intimately interwoven, and are so absolutely inseparable in practice, that, devise what theories you please, lay down what principles you like, you will always find the spiritual interfering with the secular, and you will never be able to avoid the secular interfering with the spiritual. [1905.]

68. If Christianity is to be what we all think it ought to be, and will be—the world religion—if it is really going successfully to attack those great populations in the Far East which have behind them a great tradition, a long civilisation, a philosophic mode of regarding the world, which is their own—I believe if that ideal is carried out it will be, and must be, by the help of teachers of their own race who are going to lead them, and, in leading them, will probably add something to the apparent divisions of the Christian world, although they will add, I trust, greatly to that universal Church to which every one of us, whatever be the immediate object of his ecclesiastical allegiance, belongs. And remember, that while those are, as I think, dreamers of dreams who think we can return to a single ecclesiastical organisation, those are not less in error, as I believe, who suppose that we can do without ecclesiastical organisations. It seems easy, simple, obvious, to say that the relation of every soul to its Maker is a matter between its Maker and the soul, and that the aid of these organisations is superfluous, that it is of little assistance, that it may be a cause of discord, and cannot be of assistance in the spiritual path. I believe that to be a profound error. We are all human beings, and we must work under the conditions under which human beings alone can work, or, at all events, alone can work effectively—the conditions of being organised. And, therefore, I have for myself to face the fact, and I do face it, that Christendom is and must remain ecclesiastically divided, that the Churches into which it is divided are necessary for the spiritual welfare of the world, and that what we have to do is to be able to see, beyond the separate organisation to which we all belong, that greater whole of which we are all members.

Has there ever been a time when the efforts of the Churches were more needed? I think not. I think that when the ecclesiastical history, or the religious history, of the generation in which we are living comes to be written by our descendants, they will say, and say with truth, that Christendom has been passing through a great revolution in the last thirty years—a revolution of which we do not yet see the end; that it is due to the insight and culture of those who lead in the various Churches that that revolution is a peaceable revolution; that Christendom has absorbed all the results of science, of criticism, of investigation, in every field of thought; that it is showing gradually, without the ostentation of apologetic polemics, but showing by practice, that it can assimilate all those new elements of enlightenment and progress; and that the teaching of Christianity need not be, and ought not to be, either a collision between religion and science, or even of a character which leaves science and knowledge on one side, and goes its own way, ignoring all that may be done in other departments of human learning and human effort. The task of carrying out this great change is that there shall be no loss to the spiritual efficiency of the Churches, so that the difficulties of individual believers may be smoothed away, and that all may feel that the knowledge of God's world never can be inconsistent with the knowledge of God's word. That task is one which falls not upon this Church or

that Church, but upon the leaders in every Church, and I believe the leaders in every Church feel the great responsibility thrown upon them and are proving themselves not unequal to the height of that great endeavour. But after all, if I have rightly indicated the character of the difficulties and of the problems which lie before the Churches, I have to ask you to remember that no organisation which has a human side at all can do without the adventitious assistance which buildings, which endowments, which subscriptions, which all the material skeleton of organisation call for from the members of the various communities. You cannot have a church and say that money is a matter of indifference to you. Money, material though it be, does lie at the base of much of the most useful work you do. In itself nothing, it is the basis of much of the best effort which can be made for spiritual purposes. . . . [1906.]

69. I am deeply convinced that it is quite impossible for the Church, for any Church, to mix itself up, even with the best intentions, in the secular controversies of the day without losing more for itself than it can gain for the community. That seems to me a truth to which all history attests, and I should say that even in those ages when the Church monopolised all education, all administrative ability, and all legal ability, and when therefore it was materially impossible that she should keep herself free from intermixture in the affairs of the State, such intermixture never took place without inflicting serious and sometimes permanent injury upon religion. [1908.]

70. It is this direct appeal to the individual soul which is the proper business of the Christian Churches, and that direct appeal is not limited, of course, to the mere teaching or inculcation of religion. Beyond the broader efforts which fall to the politician it is the business of the Church, as I conceive it, to appeal to the individual, to search out his particular weakness, to remedy his particular misfortunes, to raise him from his own particular quagmire, and not to put him on one side simply because he has brought by his own weakness, by his own fault if you will, by his own crime, social punishments upon himself. . . . [1908.]

71. The fact remains, as all who are interested in these religious questions know well, that one of the great tasks which our forefathers never foresaw and with regard to which they did not organise their forces or arrange their creeds, one of the great problems and difficulties before all Churches now is how to deal with the great access of knowledge, historical, critical, and scientific, pouring in every day, new matter poured into ancient moulds, how

to combine the absorption of all that new knowledge with the continuation of the great teaching of religion which has gone on continuously through all these centuries, and which, I trust, will go on through an indefinite and immeasurable future. That is a tremendous task ; it is a tremendous task because it requires great knowledge, great toleration, and sympathy from those who have to carry it on and have to deal with congregations in very different stages of education and mental development. I have always wondered and admired the success with which, on the whole, that great operation is at this moment being carried on, and has been carried on through my life, ever since I have been able to take an intelligent interest in these things. I do not believe that it has been carried on better by any Church than by the Anglican Church ; partly because it is the Established Church, and largely because it is by history and tradition a comprehensive Church. That Church has, I think, been able to meet this great crisis in the history of Christianity in a way which will move the admiration of future generations. Most worthily has it been seconded by great divines and great preachers of the Nonconformist bodies ; and if I may as a Scotchman say so—above all Churches in the country by the great Presbyterian bodies, the Established and the United Free Church of Scotland. In all these Churches men of great learning, great piety, great devotion, and saint-like lives have devoted these great gifts to dealing with the situation. [1912.]

The Civil Service.

72. I confess I have always had the profoundest curiosity to know what is thought by those members of the permanent Civil Service who come into closest contact with the Parliamentary chiefs of the various qualities of the gentlemen under whom they have successively had to serve. I cannot conceive any memoir or any commentary more interesting than such a commentary as might well be made—it would never be published—such a commentary as might well be made by some member of the Civil Service who had come into close and constant relation with the Parliamentary leaders belonging to different parties, of very different views, aiming at very different objects.

Consider, now, the experience of, let us say, the Parliamentary Draftsman. I mention the Parliamentary Draftsman because I do not think one of them is present. I might mention other members of the Civil Service, but, taking the case of the Parliamentary Draftsman, he has had, perhaps, in one year to draft a Home Rule Bill, and in another year to draft a Crimes Bill: he has had to serve, as other members of the Civil Service have had to serve, Ministers differing profoundly upon some of the most fundamental problems on which public opinion is divided: he has been present while we have been discussing, not their completed measures, but their measures in process of construction: he is privy to their changes of opinion upon this clause and that clause, and knows how this difficulty and that difficulty has been surmounted or has been attempted to be surmounted: he knows the varying views, and possibly Cabinet differences which have on more or less important questions for the time divided those who are working together. This is very interesting to him, but, from the point of view of the Cabinet Minister, I should like to know what he thought of my predecessors; I should like to find out what happened on such-and-such an occasion with regard to such-and-such a Bill! Unfortunately, that book is absolutely closed. Those secrets are kept with a fidelity comparable—I had almost said superior—to the fidelity with which Cabinet secrets are kept from the public; and we all of us—I am alluding to my colleagues and my friends in opposition—go down to our graves absolutely ignorant of these most interesting political secrets locked up in the breasts of these distinguished members of the Civil Service. As a matter of curiosity I regret it; as a student of history I regret it; as one engaged and much interested in political speculation I regret it: I confess as a Minister I do *not* regret it!

But I think I am only speaking the feeling of those who have had experience similar to my own when I express my admiration of the system by which such a result is possible. I have, after all, only presented to you what may be described as the humorous side ; but remember the humorous has a most serious side. It is because such things are possible that the British Civil Service is what it is—a great organisation, not pretending to arrogate to itself the determination of public policy, not endeavouring to supplant either the people or Parliament, which is the organ of the people, in the direction of public affairs, but always ready to give the service of a trained intelligence and a long experience to those who from time to time may have the confidence of their countrymen and the Crown. Those who give themselves over to political speculation, if they honestly asked themselves whether it was possible to combine such a Civil Service as we possess with a democratic Government, such as that under which we live, would, I boldly say, declare such a possibility to be beyond the range of speculation. They would tell you that one of two things must surely happen—that either the permanent Civil Service of the country would gradually absorb to itself such powers that it would practically exclude all other powers from the sphere of political influence ; or else, if that did not occur, that it would be at the cost of having men in our Civil Service of such inexperience or such incapacity that they would be incapable of filling any higher position, any more responsible position, than that which they actually occupy. The compromise at which we have succeeded in arriving of a trained permanent Civil Service, absolutely independent of party, absolutely at the service of each party in turn, not aiding, not impeding, the party machine, but yet combining all the advantages, all the accumulated knowledge and tradition—they would say that the creation of such a Service as that was beyond the power of human wisdom and contrivance. Well, it has come about, not by any single great measure, not by the fiat of any one powerful genius ; but by the gradual operation of the common-sense of the community a result has been obtained which might seem almost impossible.

Of course, as we all know, this great end has been largely attained by the absolute exclusion of the Civil Service from any influence over elections. I do not know—I speak with imperfect knowledge, but I should like to have a Parliamentary Return, if such a subject could be dealt with by Parliamentary Returns, of the number of countries which are under representative institutions in which it is not, if anything, a disadvantage for a party to be in power at the time of an election. I know many countries—everybody who is a student of these matters knows many countries—where the party in power has such a command over the electoral machinery that it gives it a great and distinct advantage to have the command of that machinery at the time of a general election. In this country, if it has any effect at all, it is a disadvantage. The permanent Civil Service has absolutely no relation to our electoral machinery. The Government of the day stands upon its merits or demerits ; and, if it is in office, its demerits are probably more

obvious than its merits, and, if it is in opposition, its merits are probably more obvious than its demerits; and we see the familiar phenomenon of the party in office being periodically turned out at the time of the general election. I do not know whether that "pendulum system," as it has been called, is good or bad for the country at large, but, at all events, it speaks well for the Civil Service of this country.

There is another danger which the speculative politicians would have seen in the creation of a great permanent body of officials: they would have said, 'If they do not influence elections, they will themselves be superior to all elections, and they will under the name of Parliamentary government, under the ægis of Ministers changing day by day, carry on the government of the country; they will really be responsible for its policy'. Now, I do not believe that any country can really permanently flourish if it is not merely served, but also ruled, by a permanent caste of officials; and I say that with boldness to a body of men who have themselves better means of judging of the value of that proposition I lay down than any other body of men in the country. There are countries which prevent the Civil Service from arrogating to itself functions they are not fitted to perform by turning out the Civil Service every time there is a change of Government. There are other Governments which fall into that danger by so often changing their Parliamentary Ministry that no Parliamentary Minister has a chance of making himself acquainted with the real machinery by which the details of administration must necessarily be carried on. I am proud to think that we have avoided both those dangers. We have fallen neither into the Scylla of constant change of the Civil Service nor into the Charybdis of constant change of the Parliamentary Ministers. But there is a cause even more potent to carry out the great objects to which I have referred than either of those to which I have just alluded, and that is the tradition which has grown up in the British Civil Service on this subject. That tradition is the real guardian of this country from the dangers of bureaucratic government. The tradition of the Civil Service of this country which forbids it to intervene in Parliamentary politics, and which forbids it to attempt to arrogate to itself powers which it cannot usefully employ, is our main safeguard against all the dangers connected with the highly-organised and highly-specialised Civil Service. Of that tradition you are the guardians, of that tradition you are the best exponents, and I, therefore, speaking not as a member of the Civil Service—which for the moment, indeed, I am—but speaking as one of the general public, though I have had more special opportunities than the general public of knowing what the Civil Service is—I commend this toast to you with the absolute confidence that in drinking the toast of the Civil Service you are only echoing the opinion of the whole community, which is as proud as no Parliamentary chiefs can ever be, of the great services from which we, the public, have gained so much.

[1896.]

Consumption.

73. It is impossible for us, I think, when we reflect on it, to withhold our wonder at the enormous strides which scientific medicine has made in this department, and in this department above all others. Most of us in this room are old enough to remember the time when consumption was not regarded as an infectious disease, when the similarity of its genesis with other infectious diseases from which humanity suffers, various as they are in their forms, was not recognised, and when, therefore, the treatment was empirical, had no basis in scientific knowledge, and could not be expected to obtain successful or far-reaching results. All this has been changed; and all this has been changed in less than thirty years. A great performance! [1907.]

74. Yet I do not anticipate—I speak with some diffidence in the presence of these great medical authorities—I do not anticipate that we shall, as it were, destroy or banish the tubercle bacillus completely from any great tract of country inhabited by human beings. Such an operation has, I suppose, been done with regard to the case of the plague. That has been expelled practically from Western Europe. But, after all, the habitat of that curse of humanity is in the East, and I do not know that we can ever anticipate results so great and so conclusive with regard to the particular enemy we are assembled here to-day to combat. But if we cannot destroy or expel the tubercle bacillus from among us, we can, I suppose, reduce its power of doing evil to a degree which may seem to us at the present moment almost incalculable. We have before us what has been done with regard to typhus. I doubt whether there is at the present moment a single case of typhus in the whole city of Edinburgh. It may be that our children will live to see the time when consumption shall be as little known in our midst as typhus is at the present time. I suppose if we were returning to those conditions of society, and to live those social conditions in which typhus once flourished, I imagine that that dreaded pest would again lift up its head, and that we should suffer from it as we have suffered before. But we have come to a condition of affairs with regard to that particular disease so satisfactory that the force of resistance in the community at large is ample and adequate to prevent its making any lodgment of a serious kind in our midst. That is the ideal to which we look forward with regard to tuberculosis.

There is a third method of dealing with this infectious disease besides

the two I have mentioned with which we are most of all concerned to-day. It is the method of taking those who have been attacked, and restoring those powers of resistance by appropriate treatment so that they can throw off the disease which has made, as it were, a lodgment in their organism, and can return to their ordinary work and their ordinary life re-endowed with those powers which may render them immune against any further similar invasion. That is the object for which sanatoria exist, and we shall never be able to deal adequately with this subject unless we get into the popular mind the distinction between the various methods of dealing with this disease, and not attempt to do in sanatoria that which can only be done in hospitals, or to do in the hospital that which can only be done in the sanatorium. . . . [1907.]

75. And this is the fundamental truth which must never be lost sight of—consumption is a disease which can be dealt with if you take it early, but if, through ignorance, through neglect, or bad advice, you allow it to get a fatal grip upon the organism, all you then can do is to smooth the dying months or years of the sufferer, to relieve his pain, but in no sense to restore him to his place in society or that work in the world which wiser treatment and earlier prudence would have enabled him to fulfil. Now it is a great responsibility resting upon every one of us to see that these doctrines of modern scientific medicine penetrate not merely the well-to-do, but every class in the community. When I was young not only were those obscurantist doctrines universally held to which the President of the Royal College of Physicians directed our attention, but it was supposed that only those who could afford the costly luxury of foreign travel and residence in some happier climate than our own could really do anything effectual to cure the disease or mitigate its evils. We now know better. We now know that there is in a properly organised society, within the reach of every member of the community, a far more effectual method of treatment than that which was open to ourselves in our youth or our fathers before us. And it is sanatoria like these, springing up as they are all over the country, to which we must look for doing that which is something more than a personal benefit to the sufferer, but which we ought rather to regard as a great social gain to the community at large. I suppose an ingenious person might, if he took the trouble, crystallise and sum up the benefits which are done by the successful cure of consumption in its early stage, and put them in the form of pounds, shillings and pence. I have not gone through such a calculation. I think there are broader and simpler considerations which will perhaps appeal more directly to the hearts and to the intellect of every one of us.

The poor, when they are attacked by this insidious malady, are almost unavoidably—unless better counsels prevail—induced to go on with the work on which their families, it may be, depend, until weakness

and the progress of the disease render a further struggle hopeless and impossible. Thus misery and infection, it may be to wife or children, follow in their fatal train, and society finds itself charged with the maintenance and support of the family in misery and in relative degradation which, had only the counsels of modern knowledge been pursued, would have been able to maintain its place, and hold up its head in prosperity and success as useful, as happy, and as healthy members of the community at large. Can any benefit be conceived greater, not merely to the man affected and to those dependent upon him, but to the society of which he is a part, than to explain to him that if in the early stage, before he is driven from useful work, he will only place himself in such an institution as this, there is not merely a chance, but the highest degree of probability, that he will be restored to his family, and to those dependent upon him, as efficient a member of society as he was when he was driven from his own roof-tree.

If that be true, and if it be a correlative duty of all of us who are convinced of its truth, and most of the medical profession whose business it is to advise those who come to them for medical assistance, it is manifest there is another and positive duty to provide the means by which this sound policy can be carried out. What is the use of my saying, or anybody saying, that it is the business of the doctor as soon as he sees one of his patients affected by the disease to send him then and there to an institution where he can receive proper treatment if no such institution exists, if there is no place in any existing institutions, if all the beds are filled and all the rooms are occupied? The advice falls upon ears which may be open to receive it, but the unfortunate man says, 'I shall gladly go, but where can I go? I have applied here and I have applied there. Every place is filled. I see nothing for it but to go on where I am, in the surroundings where I am, which will do nothing to relieve but possibly increase the disease—myself a source of danger to those dearest to me, finding myself day by day less capable of carrying out my proper functions of life. Willingly would I remove myself from circumstances of that kind, but how am I to do it unless there are provided for me those appliances which you tell me science has discovered, but which charity has not yet been able to provide for the poorest of its members?' Considerations of that kind are those which have led to the founding of this institution. They have led to its growth. They have led to the additions which it will be my duty to-day formally to declare open. But do not let us suppose that our duties stop here. We have other work in this connection, further efforts which have to be made, which must be made,—unless we are prepared to admit that we know what ought to be done, that we know what is even cheapest from a social point of view to do, but refuse to show that degree of charity, of wisdom, of public spirit, that alone will enable us to do it. I do not believe that that reproach will rest on the citizens of Edinburgh. [1907.]

Co=partnership.

76. No doubt it is a fact that, in the earlier stages of the movement, it was anticipated by many persons that co-operation would, in the main, be productive co-operation, and that productive co-operation was destined to revolutionise, to make a very healthful change in the general system of production throughout the country. Those hopes up to the present time have not been fulfilled, I believe, in any large measure ; production has, in the main, and co-operation has, in the main, flowed into other channels than that which certain of the original founders of the movement anticipated. But I am not going to discuss the fact whether it is possible to make productive co-operation what many people once thought it might be. I have always thought if it really could be carried out upon any great scale, and if you could make the producers and the employers one body—which was the original scheme of co-operation—you would, no doubt, be able to get rid, without the costs of arbitration, without the unhappy machinery of strikes, without the painful incidents necessary to trade disputes, you would get rid, I say, of a great deal of difficulty, of the friction, and of the losses which now, unhappily, attend so many of the great industrial enterprises of the country. And I for my part, so far, do not think that we can flatter ourselves that very great progress has been made in this direction. I myself do not give up the hopes which I entertained early in life when I first began to study these questions. I still think in some departments of production we may be able to see a system of co-operative production, co-operative in the fullest sense of the word, where the producers and the co-operators are the same individuals, I still think that we may see that carried out to a successful issue. [1895.]

77. We recognise that the industrial system of modern societies is an extremely complex whole, having its roots deep in an immemorial past ; bound, therefore, by all the ties which hamper the present in its relation to the future because of the past : and we also recognise that the different industries, co-related as they necessarily are, and yet carried on under different conditions, may require different organisations, having to deal with persons of different degrees of knowledge, experience, and culture, and that it is equally impossible—it would be the worst form of doctrinarianism—to lay down any absolute rule of industrial organisation to which every industry

must conform, or else be regarded as utterly wanting in those qualities which bring it within a favourable view of those who rule this Society. It is quite true our ideal is complete co-partnership, and by complete co-partnership I mean that those who carry on the work shall be associated as partners in all that the work brings in. That, broadly speaking, is the way I should advocate what is meant by complete co-partnership. But we recognise as an approach to that ideal many arrangements which are far less complete or theoretically perfect. We applaud every arrangement which softens or obliterates the division between employer and employed, between owner and occupier. Everything that is a step in that direction is to us welcome. Everything that helps along the road I have indicated is a step we desire to encourage, and, speaking for myself, I am certainly not one of those who believe that the ideal scheme can necessarily be carried out to advantage in every industry, in every department of productive effort. Certainly I cannot see that it can be carried out in the present development of society, and I am too disinclined to prophesy, or to lay down dogmatically the proposition that the time ever will come, or indeed ought to come, in which the whole industrial effort of the world will be framed upon one single idea or model.

78. If I thought that the introduction of the Co-partnership system was to prevent that initiative which depends upon men, and to transfer that initiative to the incompetent hands of a committee, I should despair of the process. But it does not mean that at all. I believe the workmen of this country are as capable as any other class of understanding the real force of the observations I have made. They know, or they will know, when this system gets into force for any length of time, that to carry it out in these days—not merely of competition, but in these days when industrial and scientific inventions are making such rapid changes in almost every industry of the country—if you are to hold your own in the struggle for existence against competitors who have every advantage of organisation and of initiative, they cannot afford to give up, and they will not desire to give up, the advantage which efficient able management can give them in the struggle for commercial existence [1908.]

79. Let me say one more word in order to remove what I think is a misconception attaching to the movement in which we are all interested. People talk as if it were simply a movement to avoid contests between Capital and Labour, or as if, on the other hand, it was simply a movement to induce workmen to be more energetic and less wasteful in carrying out the work for which they are paid. Those are both excellent objects, but I do not—and I say it frankly—recognise this movement because it is immediately going to show results in the balance-sheets of employers or companies. I recommend it on much profounder grounds—grounds which go much deeper into the heart of things. After all, I think that in our ordinary speech we lose a great deal by talking as if the labour of a man

whose life is devoted to labour was, in itself, an evil, but which becomes tolerable because he is paid for his labour and the payment he receives for his labour can be used to amuse him, or support his family, or in some other way, when the hours of labour are over. There is, of course, an element of truth in that ; but I am quite certain that that element of truth is grossly exaggerated in ordinary speech. I do not say that labour is a pleasure, but I do emphatically say that unless the work we do in life can be made inherently interesting—I do not say pleasurable—we have not yet got at the root of any social problem. The art of life is to make uninteresting parts into an interesting whole. No man's work—I do not care what he works on—is in itself, take it bit by bit, of an exhilarating character. . . . [1908.]

80. The uninteresting parts do make an interesting whole, and I am perfectly convinced from observation that many of those who are engaged in what is called less elevating work than that of the House of Commons—perhaps not rightly called less elevating—I am sure that many of those, unknown to themselves, really get most of their satisfaction in life not from their pleasures, but from their labours. And I think we often exaggerate the extent to which at present society fails in that ideal. Talk to an agricultural labourer working on a large well-managed farm, talk to an artisan engaged in some great industry, and you will find—at least I have found—that it is a great mistake to suppose that all they care for is the amount of wages they get per week, and what they can do with that wage. They are interested in the concern. They feel instinctively that they are part of a great machine, of a great industry involving the expenditure of much brains, organised power, capital, which uses the latest machinery, and which is up to date. They are glad to be parts of that machine. It gives them, or many of them, a certain satisfaction, and they take an intelligent interest in it, although, under our existing system, all that they can get out of it is the actual industrial weekly wage, irrespective of the prosperity or of the adversity of the business, so long as the business continues.

Now I am right in saying that the introduction of machinery has undoubtedly made in many industries the work of individual operatives extremely monotonous. A man or a woman has got to do one thing, and one thing only, all day and every day. They have got to look after one bit of machinery which contributes its own small quota to one complete result, and they have got to do that and nothing else. That is a worse position than what it was when machinery was much less developed than now, and when the individual workman had to do a great many different stages in the same ultimate production ; and when, therefore, he had grounds for interest in his work which seem almost removed from the modern operative who has got to deal with the most advanced form of machinery. But, on the other hand, there is a set-off to that in the sense of the extraordinary beauty and

complexity of the total mechanism of which he individually manipulates a fragment. I do not believe that the consciousness of that great complex mechanism is absent from the mind of the intelligent workman, although he be dealing only with a small portion of it. If what I have said is true, or is in some near relation to the truth, is it not of enormous importance to us to try and increase this interest in a man's work, which I believe is the chief interest of his life outside the family affections? The music-halls, public-houses, and so forth, the clubs—whatever it may be—may be, if properly used, a not illegitimate addition to the sum total of the felicity of those who use them. But I am certain that it is the work a man does which is the real thing in life. What you have to do is to increase the interest of the workman in the work he is doing, and that you can do more by furthering the Co-partnership system than by any other possible means. You then make him feel he is part of a great organised mechanism of production, that he is a unit in the great army which is producing the goods the world consumes. You not only make him feel that he is doing his share of the world's work in that way, and getting a fixed wage for it, but you make him feel that he is a shareholder in the particular department of co-operative work in which he is engaged. That feeling must increase a man's interest. It must make him feel that he will gain by everything that is being done well, while he will lose by everything that is being done ill, and his own personal fortune is more or less bound up in the success of the industrial concern of which he is a member. I venture to suggest that that is a very valuable asset, and that it goes deeper than the balance-sheet or the conflict between Capital and Labour.

There is one other consideration which, to my mind at all events, ought never to be absent from the thoughts of those who desire to develop industrial organisation on the line which commends itself to us who are on this platform. Modern industry is an extraordinarily complex and difficult organism. It is an organism all interconnected; it is all one business, but it is a business of the most extraordinary complexity. Some of it involves an expenditure of brains, of intellect, the exercise of courage, and rapid appreciation of a difficult situation, of which I do not suppose the outside public have the smallest conception. Even those who are engaged on a work have probably not any really intimate acquaintance with the difficulties which the owners of that work have got to face. It is because they do not fully appreciate them that some of the difficulties between Capital and Labour arise. The quarrels of mankind are not due to the fact that mankind are bad; they are due to the fact that mankind are ignorant. The more you can encourage mutual knowledge of each other's affairs by those who have to guide the enterprise, and the workmen on whom they depend for carrying out their plans—the more you bring these two classes together, and especially the more you make the workmen understand the difficulties of the employer—I am certain you will produce a class of men in this country who are fitted to deal with all questions, be they

industrial or political or social, who do not exist at the present time. I speak in the presence of some of the Labour members of the House of Commons, who do not agree with me on many points—I dare say they do not agree with each other on many points—but we all agree on this, that nothing can be better for the community as a whole than that the great artisan classes should have the closest possible knowledge, the most intimate knowledge possible, of business methods, difficulties, and risks, as well as of business profits. That great result you will get by Co-partnership, and I doubt if you will get it in any other way. But if Co-partnership, either in its complex form, or any of its less developed shapes becomes general, my firm conviction is that you will have done an enormous benefit for the social advantage of your country, not merely or chiefly because in the industries where Co-partnership exists there will not be strikes, not chiefly because there will be more energy shown on the part of the workmen, and a better balance-sheet of profits at the annual meeting of the concern, but, because, in addition to those advantages, and quite apart from and above them, there is the additional interest in the great industrial work which will be instilled into the mind of every worker in the country, and that greater knowledge of all the complexities and difficulties of industrial life which is the true secret of the sympathy between one producer and another, and which is the great guarantee of social peace and the great hope of social progress. [1908.]

Copyright.

81. I think it is a profound mistake to confuse the rights of authorship with such things as patent rights. Property in patents is property in nothing but the idea. A man has an idea: he patents it, and no one else may use the idea till the patent is over. I quite agree that if you extended the length and obtained this monopoly of idea, it might be most oppressive. But copyright does not monopolise ideas. The only thing that copyright monopolises for a certain length of time is the form given to certain ideas by a particular genius or man of talent; and these are quite different things. There could not be a better illustration than that given by the honourable Member. He mentioned the works of Darwin. The works of Darwin are exactly one of those rare illustrations both literary of the great novelty and brilliancy of idea and conception, and also of form embodying those ideas. It is because Darwin was a great *littérateur*, and not because simply he was the inventor of a great theory of development, that his books are now read with so much interest and attention in the homes of the working classes and of all other classes of the community. There was no monopoly in Darwin's idea. On the contrary, after the "Origin of Species" was published, it was open to every man in the Kingdom to give an absolutely full abstract of all Darwin's argument without missing out a single thing, and that would have been no interference with copyright at all. As far as ideas were concerned, they were public property without monopoly, without any control of law courts, or anyone else of the whole intelligent world. What was the property was the admirable embodiment which Darwin gave to those ideas, not in one book, but in all his books, from the "Voyage of the 'Beagle'" downwards. They are, and they remain, delightful literature, although, of course, the very magnitude of Darwin's work in the theory of evolution has enabled Darwin's successors to point out, possibly, deficiencies here and there in the great structure of which Darwin laid so deep and solidly the foundations.

There is, therefore, really a fundamental distinction to be drawn between the ideas embodied in a patent, or an idea contained in a book, and a copyright given to a particular author who embodies his idea in a particular form which lives occasionally—rarely—through the fifty years of monopoly which the Copyright Laws give him. When the honourable Member indicates that in his view we must not rate too highly the works of the poet, the author, or the inventor, because, after all, the poet, the author, and the inventor are

all creatures of their age, that they all borrow from the past, that they all rest on the past, and that none of them could have been anything without the past, we all probably agree to that ; but I do not think it bears out the conclusions of the honourable Gentleman. If we should have got on just as well without these people, why, then, their merit is very negligible. I am sure that the honourable Gentleman will be the first to say that give what share you like to the work of society in the production of works of genius, if science in this country had not had in physics, we will say, Young, Faraday, Kelvin, and the rest, science would not be where it is. Nor would literature be where it is if we had not had in poetry Wordsworth, Keats, Tennyson, and the rest. Literature would be in that case incomparably poorer. There is no use saying that these men got a good deal from society. The point is—what did society get from them? And if you look at it from that point of view, I do not think any recognition of the undoubted truth that all of us are creatures of our age, the products of our time, the result, for good or bad, of generations of incalculable and composite forces—no consideration of that kind should affect the judgment we come to as to the expediency of securing for a great man of letters the product of his toil.

Whatever you may say of other branches of industry or of work, no one will say that genius is overpaid. You may think that the successful financier, the fortunate inventor, the shareholders in some great successful firm, the landlord who suddenly finds his land near some growing city, are fortunate beyond their deserts, and are being rewarded by the growth of society beyond what you think they ought to get. But will anybody say that the man of genius gets more than his deserts? Is he overpaid? Does he get too much? I think if there be an error in our social arrangements in regard to the reward of this particular class of the community, it is that they are underpaid, and not overpaid. There are, of course, great exceptions. There are men, for instance, of admirable genius, whose works appeal not merely to a restricted and select few, but to a vast area of contemporary readers. There are not very many, but they exist ; and anybody acquainted with the elements of literary history can give you easily the chief names. But compared with this small and fortunate band there are an enormous number—well, not an enormous number, but a much greater number of people who have in their lives suffered from poverty and neglect, suffered from lack of consideration and poor emoluments, and yet whose names are now household words throughout the world and whose books are read with gratitude by generation after generation.

If in this Bill, or any other Bill, something can be done to give them their fair share of the good things of this life, and to reward adequately the immense benefits which they have conferred on their species, I do not think we ought to grudge it. . . . [1911.]

Cromwell.

82. I am the last person to deny that he was a very great Englishman, and a man whom—whether we be Englishmen, Scotchmen, or Irishmen—we should have no objection to seeing honoured by some permanent memorial. But I do not agree either with the violent attacks on him or with the laudations, which I conceive to be extravagantly worded, expressed by those who have spoken in this debate. I believe that Cromwell was neither the fiend represented by one set of critics nor the man of supereminent greatness represented by others. His reputation has, as we all know, gone through strange vicissitudes. Cursed after his death by the violence of party faction, his ashes scattered to the winds, his name scarcely to be mentioned in respectable society as of one possessing any virtues at all, he has now for more than a generation—largely through the labour of Mr. Carlyle—been raised on a pedestal which, in my opinion at all events, is too high. Thomas Carlyle is largely responsible for what I cannot help regarding as something in the nature of an historic legend. Nobody would for a moment deny Cromwell was a great soldier. But remember he never was brought into conflict with any of the really great commanders of his time. He never had to fight Condé or Turenne; and those whom he had to fight, though of eminent bravery and average capacity, have not left in military history any great name. Then Cromwell is sometimes described to us as the one heaven-born Foreign Minister whom England possessed during the whole of the seventeenth century. I think that that view of his character is altogether beside the truth. I am no great admirer of the kings of the House of Stuart, but from the very nature of their position it was absolutely impossible for them to have what is called a ‘vigorous foreign policy’. They were in constant conflict with their Parliament. They never had at their command what Cromwell had—a standing army. If they had had at their command that standing army, able to do for them what Cromwell’s did for him—make them superior to all laws and absolute masters of the resources of the country, whether the people were desirous of supporting their policy or not—then, though I do not contend for a moment that Charles the First or Charles the Second was equal to Cromwell in capacity, they would certainly have had a foreign policy different from that which circumstances obliged them to pursue.

And when we hear of the vigour of Cromwell’s foreign policy, let me remind the House that he exercised that policy at a most opportune

moment in the history of Europe for his purposes. Cromwell came between the strong rule of Richelieu on the one side and of Louis the Fourteenth on the other; and we should have heard very little, probably, of the story of the Pope hearing the sound of his canon at the Vatican if his period of power had coincided with the height of power enjoyed by Louis the Fourteenth. Let me say, further, with regard to that foreign policy, that, as far as we can judge after the event, he took the wrong side. While the coming danger to Europe was from the French, he supported the French against the dying monarchy of Spain. I, at all events, cannot join in the somewhat extravagant eulogies passed upon his foreign policy.

What are we to say about his domestic policy? I believe Cromwell was a sincere lover of men, that he was sincerely desirous of seeing constitutional Government carried on in this country, and that he was no enemy of Parliamentary institutions. I entirely agree that Cromwell would have been anxious to govern according to constitutional means had it been possible for him to do so. It was not possible for him to do so. By his ill-fortune rather than his bad management he found himself governor of England against the will of the country and the people. One honourable Member described Oliver Cromwell as "a good democrat". He may have been a good democrat. . . . At all events, that was the position in which Cromwell found himself through all the years of his reign; and every attempt which he made—and they were perfectly genuine and honest attempts—to substitute some form of constitutional government for the military despotism which was, in fact, the framework of English Government at the time, was thwarted by the House of Commons. Are we to describe in these terms of eulogy a man who, so far as I know, has left behind him not one single permanent trace of creative ability, and not one single mark upon our constitutional history. I am not aware of any, except perhaps that prejudice against standing armies which had been burnt into the English mind for generation after generation, and which was one of the greatest difficulties that successive English Governments had to contend with in carrying out a great constitutional policy at the end of the seventeenth and the beginning of the eighteenth centuries.

It appears to me that while it would be folly to deny to Cromwell the epithet of 'great,' he was, on the whole, through no fault of his own, a somewhat ineffectual, and certainly a most pathetic, figure in our history. But, Sir, holding those views—and we are all at liberty to form our own estimate of historic characters—is there anything in what has been said which should induce this House to take down the statue from the place where it is, and either destroy it or erect it elsewhere? Sir, I say there is nothing. . . . It is my good fortune to live near the battle-field of Dunbar, where Cromwell defeated my countrymen, gaining one of the greatest victories ever won by Englishmen over Scotchmen. Does any Scotchman on that account think he has a blood feud with Cromwell which no time can work out? Surely that is neither a generous nor a wise

point of view. When communities are bound to live together, when peoples are placed under circumstances where a common life is absolutely necessary, surely it is not only Christian charity but the height of wisdom to forget those old injuries, those ancient far-off wrongs, which are being perpetually brought before the mind by memories of that kind—embittering differences, and perpetuating racial hostilities. I have been accused of inconsistency because I resisted public money being given to erect a statue to Cromwell in the year 1895, while assenting now to some one else giving a statue out of his private means to be erected in the precincts of the House. I believe there is not one shilling of public money expended on the statue, and I confess I do think it would be carrying these ancient political feuds very much too far if we were to forbid private generosity to erect a statue to a great Englishman. There is hardly any action for which the Restoration Government has been more bitterly, and perhaps more justly, attacked than that of desecrating Cromwell's grave, taking up his ashes and scattering them to the winds. They did that deed under the bitter memories of wrongs scarcely healed over, and of wounds which were still green and fresh. Are we to do something parallel two hundred and fifty years after Cromwell passed away? Are we to be so mindful of any error he may have committed that even now we cannot tolerate within fifty yards of this House the statue of a man who was supreme Governor of this country for many years, a man who showed great ability, and a man to whom, however we place him in the hierarchy of English worthies, no one denies the title of 'a great man'? [1900.]

83. Your Worshipful Master has reminded us that to-day is the Commemoration Feast of this Company, the emblem of which we all wear in our button-holes. It is the Commemoration Feast which calls to our mind the universal enthusiasm—broadly speaking, irrespective of party, or religion, or civil differences—which welcomed back Charles the Second after his exile, to resume the ancient traditions of the country. Why was it that at that time there was an almost unbroken feeling of satisfaction that those traditions were resumed? It was not because Oliver Cromwell was a statesman indifferent to tradition. If anything is clear about that eminent, though rather tragic, figure in British history, it is that when the force of circumstances compelled him to deal as supreme ruler with the destinies of his country, he did his very best. He did his very best under the new circumstances to continue what he had found. He was no *doctrinaire* of the character of some few of his contemporaries, no *doctrinaire* of the type of which hundreds and thousands of the best educated men in all countries were at the time preceding and during the French Revolution. His was a very different, a very British type of mind; and, if he failed—and, with all his genius, it is manifest that he did fail—it was not because he was indifferent to the traditions of his country, not because he had some cut-and-dried

theory as to how men in the abstract, or how Englishmen in particular, should be governed,—it was because, by the force of circumstances, for which he may have been in part responsible, for which certainly he was not alone responsible, he found himself compelled to break with the traditions of the past, and because he broke with those traditions formally and absolutely. It was no use his trying to put up under different names with a broken continuity institutions similar to those of the past, perhaps on paper even better in some respects, but which nevertheless were in no continuous unity with that history to which the English people were profoundly and deeply attached.

I read a very interesting article in the *Times* to-day quoting from the great statesman and historian, Lord Clarendon, something which was half a prophecy and half a prayer, that the condition of things resumed at the Restoration might last in perpetuity, and the writer of that article said Lord Clarendon's prophecy and his hopes were disappointed and his prayers were unfulfilled, because at no very great distance from the time when he died the Revolution of 1688 occurred. I think I am not misrepresenting what the writer said, but with great respect I dissent from that judgment. I think that since the Restoration there has been no break in the continuity. We are misled by the terms the 'Great Rebellion' and the 'Revolution'. The truth is that the Great Rebellion failed, because it was not a rebellion, but because it was a revolution; and the Revolution succeeded, because it was not a revolution, but was a rebellion. Undoubtedly legally, technically, by every law of the country, the exclusion of James the Second was a rebellion. It was a success because it was not a revolution, and the continuity has gone on from the Restoration which we celebrate to-day to the very moment at which I am now speaking. It surely is no party sentiment to say that the failure of one of the greatest men England has ever produced, namely, Oliver Cromwell, successfully to break the continuity of English evolution and development, and the success which has followed upon what in many respects seems to the historian to have been but a poor triumph, the triumph of the Restoration,—the lesson to be drawn from that, a lesson which I believe all parties in this country would accept, is that if you really are to make the best of the future you must never ignore the past. [1912.]

Darwin.

84. I have been requested, by those who are responsible for the organisation of this celebration, to take that part in it which has been announced in no uncertain tone. I am conscious of but two qualifications which I possess for the task. The one is the deepest personal affection and the most unstinted admiration for the subject with which I am asked to deal; the second is that I yield to no man in my loyal devotion to the University of which Charles Darwin was one of the greatest ornaments. I think it may well thrill the minds of every son of Cambridge to reflect on the part which his University has played in leading great movements, those great cosmic movements whose effects are never obliterated by the progress of science, or the development of discovery, but which remain as perpetual landmarks in the intellectual history of mankind. This day and on preceding days we are concerned with Charles Darwin. Charles Darwin, though one of the greatest of men of science the world has seen, has, even in Cambridge, great rivals. Will it be erroneous to say that much of the best scientific thought of the eighteenth century was devoted to developing those great mechanical ideas which the world owes to Newton? During that century men largely spent their time in developing ideas the origin of which we can with perfect certainty trace to the greatest ornament of our University, and perhaps the greatest man the world has ever seen. Is it not true that the greatest scientific minds of the nineteenth century were largely occupied with another allied set of problems, those connected with the character of the ether and the energies of which ether is the vehicle; and that in Cambridge we may claim to have educated Young, Kelvin, Maxwell, Stokes—I do not carry the catalogue into the realm of the living—men whose names will for ever be associated with that vast expansion of our knowledge of the material universe, associated with the theory of the ether, the theory of electricity, of light, and that great group of allied subjects. If we have not in that department a clear and undoubted lead, which Cambridge men may surely claim that Newton gave in another department, at least we have borne our fair share, and more than our fair share, of the heat and burden of scientific investigation. And we are now occupied with pardonable pride in turning our attention to one who in another wholly different sphere of scientific investigation has for all time imprinted in

unmistakable lines his unmistakable signature upon the whole development of future thought.

I do not wish to exaggerate on such an occasion, because of all crimes Charles Darwin would have disliked exaggeration in anything connected with science, and most of all in anything connected with his own claims. Yet the fact remains that Charles Darwin has become part of the common intellectual heritage of every man of education, wheresoever he may live, or whatsoever be his occupation in life. The fact remains that we trace, perhaps not to him alone, but to him in the main, a view which has affected not merely our ideas of the development of living organisms, but ideas of politics, ideas upon sociology, ideas which cover the whole domain of human terrestrial activity. He is the fount, he is the origin, and he will stand to all time as the man who made this great—as I think—beneficent revolution in the mode in which educated mankind conceive the history, not merely of their own institutions, not merely of their own race, but of everything which has that unexplained attribute of life, everything which lives on the surface of the globe, or even the depths of its oceans. After all Darwin was the Newton of this great department of human research; and to him we may look, as we look to Newton to measure the heavens or to weigh suns and their attendant planets. The branch of research which he has initiated is surely the most difficult of all. I talk of measuring the heavens and weighing suns; but those are tasks surely incomparably easy compared with the problem which taxes the physiologist, the morphologist, in dealing with the living cell, be it of plant or be it of animal or man. That problem, the problem of life, is the one which it is impossible for us to evade, which it may be impossible for us ultimately to solve; but in dealing with it in its larger manifestations Charles Darwin made greater strides than any man in the history of the world had made before him, or that any man so far has made since that great anniversary of the publication of the “Origin of Species” which we have met this week to celebrate. We have heard this morning, from lips far more expert than mine, some estimate of the genius of that great man in whose honour we have met, and I feel it would be impertinent to add to anything which has been said.

One aspect, and one aspect alone, of Darwin's scientific genius seems to me to be insufficiently appreciated, at all events by the general public, of which I am one, and on whose behalf I may be supposed to speak. I mean the great achievement which Darwin made in science quite apart from—I may not say quite apart, but distinct from—that great generalisation with which his name is immortally connected. Let us assume that Darwin was not the author of the theory of the “Origin of Species”; let us assume that the great work which he did in connection with the ideas of the evolution of human beings had never taken place. Would he not still rank as one of the most remarkable investigators whom we have ever seen? I am, of course, not qualified to speak as an expert upon this

subject, but I appeal to those—and there are many in this room—who are experts. Is it not true, quite apart from his theories of evolution, that in zoology, in botany, in geology, in anthropology, in the whole sphere of these great allied sciences, Charles Darwin showed himself one of the most masterly investigators, proved himself to have the power of the loving investigation of natural phenomena ; showed himself to be able to cast a new and an original light upon facts the most commonplace and the most familiar, and to elicit from them lessons which men of science must always value quite apart from the great uses to which his genius was able to put them ? It is, I think, satisfactory to see that in order to gain a place second to none in the growing list of great men of science, it is not merely necessary to have the power of ingenious generalisation which is given to many, to some who have not other powers. Darwin's great achievement was due to the fact that with this power of generalisation, and ancillary to it, he had the power of investigation, the power of seeing the problems, that required solution in the world in which he lived, which, so far as I know, has seldom been equalled, and certainly never been surpassed in the biography of great men of science.

I cannot conclude without saying something about Charles Darwin the man, as well as Charles Darwin the great man of science. Some of us—I am proud to think I am one among many in this room—knew Charles Darwin personally. Those who had not that great honour and that great pleasure, have the next best thing to it in the biography, which reveals the man as clearly as printed matter can reveal living human personality. I am sure I am not in the least going beyond the bare and naked truth when I say that quite apart from his great scientific achievement, there never lived a man more worthy of respect and more worthy of love than this great naturalist. From the very nature of the case his great generalisation, from the very fact of its magnitude, produced, as was inevitable, violent controversy ; and human nature in 1859 and 1860 was not different from human nature in 1909, and violent controversy then, as now, was prolific, and must be prolific, in misrepresentation. So far as I am aware no misrepresentation moved that equable temperament. Darwin never was betrayed into uncharitable observations ; he never was embittered by any controversy, however unfair ; but he pursued the even tenor of the man whose business it was to investigate the truths of nature and to state fact as he saw fact, to proceed irrespective of all the storm of indignation and of misplaced antagonism to which his speculations at the moment inevitably led. That is a great quality. It is a quality which few men of science have possessed in equal measure. Most scientific discoveries are so remote from the knowledge and immediate interest of uninstructed mankind that the man of science may pursue his way tolerably secure of escaping abuse from any but his scientific rivals. That was not Charles Darwin's fortune. He, through no fault of his—and, let me add, through no fault of the community to which he gave his discoveries—inevitably produced general controversy, for those

discoveries attacked the conception which every man had formed of the world in which he lived and of the race to which he belonged. On the whole I think it is creditable to every one concerned that that controversy went on with so little bitterness and so little misrepresentation. But though there was bitterness and misrepresentation, yet never did it deflect for one instant, so far as I am aware, the strict path of scientific rectitude and of admirable charity which always characterised that great man. When we remember under what circumstances of ill-health Darwin pursued, decade after decade, these immortal investigations, I think our admiration for his temper, for his moral character, is augmented by a feeling of further admiration for the heroism with which he fought against these untoward physical conditions. Never did he lose his interest in his work, never was he discouraged. He went on from discovery to discovery, and from truth to truth, unwearied and unfatigued, leaving behind him the immortal reputation which we are here to celebrate.

I do not think that all the history of science has produced a genius whose memory a great University could more fitly celebrate, or one whose contributions to knowledge the representatives of other great centres of learning would more gladly assemble to honour. I have ventured, perhaps too boldly, to praise Cambridge and those whom Cambridge has produced, but our guests will forgive in a son of Cambridge a momentary excess of emotion, if not of statement; and if you think I have exaggerated the fame of my own University, you will at all events agree that I have not exaggerated the merits of the man to whom we have met to do honour. For he was a man whose performances have become part of the common intellectual heritage of mankind, through whose ideas we look at every problem, not merely those connected with the lower organisms, but those connected with society, as an evolutionary question; and he was above all a man whose heroic disposition and whose lovable qualities would, even if he had not otherwise gained that immortal niche in the temple of fame, still commend him to every man who either knew him personally, or who by tradition has been able to form some estimate of the rare qualities which he exhibited. There is another speech to be delivered on this great theme by one incomparably more qualified than I can pretend to be to deal with Charles Darwin on the scientific side, and I will leave to him the grateful task of asking you to drink to the memory of Charles Darwin.

[1909.]

Decadence.

[*The extracts under this heading are taken from the Henry Sidgwick Memorial Lecture delivered at Newnham College, January, 1908.*]

85. It is curious how deeply imbedded in ordinary discourse are traces of the conviction that childhood, maturity, and old age are stages in the corporate, as they are in the individual life. 'A young and vigorous nation,' 'a decrepit and moribund civilisation'—phrases like these, and scores of others containing the same implication, come as trippingly from the tongue as if they suggested no difficulty and called for no explanation. To Macaulay (unless I am pressing his famous metaphor too far) it seemed natural that ages hence a young country like New Zealand should be flourishing, but not less natural that an old country like England should have decayed. Berkeley, in a well-known stanza, tells how the drama of civilisation has slowly travelled westward to find its loftiest development, but also its final catastrophe, in the New World. While every man who is weary, hopeless, or disillusioned talks as if he had caught these various diseases from the decadent epoch in which he was born.

But why *should* civilisations thus wear out and great communities decay? and what evidence is there that in fact they do? These questions, though I cannot give to them any conclusive answers, are of much more than a merely theoretic interest. For if current modes of speech take Decadence more or less for granted, with still greater confidence do they speak of Progress as assured. Yet, if both are real, they can hardly be studied apart; they must evidently limit and qualify each other in actual experience, and they cannot be isolated in speculation.

86. We must not consider a diminution of national power, whether relative or absolute, as constituting by itself a proof of national decadence. Holland is not decadent because her place in the hierarchy of European Powers is less exalted than it was

two hundred and fifty years ago. Spain was not necessarily decadent at the end of the seventeenth century because she had exhausted herself in a contest far beyond her resources either in money or in men. It would, I think, be rash even to say that Venice was decadent at the end of the eighteenth century, though the growth of other Powers, and the diversion of the great trade routes, had shorn her of wealth and international influence. These are misfortunes which in the sphere of sociology correspond to accident or disease in the sphere of biology. And what we are concerned to know is whether in the sphere of sociology there is also anything corresponding to the decay of old age—a decay which may be hastened by accident or disease, which must be ended by accident or disease, but is certainly to be distinguished from both.

However this question should be answered, the cases I have cited are sufficient to show where the chief difficulty of the inquiry lies. Decadence, even if it be a reality, never acts in isolation. It is always complicated with, and often acts through, other more obvious causes. It is always therefore possible to argue that to these causes, and not to the more subtle and elusive influences collectively described as 'decadence,' the decline and fall of great communities is really due.

Yet there are historic tragedies which (as it seems to me) do most obstinately refuse to be thus simply explained. It is in vain that historians enumerate the public calamities which preceded, and no doubt contributed to, the final catastrophe. Civil dissensions, military disasters, pestilences, famines, tyrants, tax-gatherers, growing burdens, and waning wealth—the gloomy catalogue is unrolled before our eyes, yet somehow it does not in all cases wholly satisfy us: we feel that some of these diseases are of a kind which a vigorous body politic should easily be able to survive, that others are secondary symptoms of some obscurer malady, and that in neither case do they supply us with the full explanations of which we are in search.

Consider, for instance, the long agony and final destruction of Roman Imperialism in the West, the most momentous catastrophe of which we have historic record. It has deeply stirred the imagination of mankind, it has been the theme of great historians, it has been much explained by political philosophers, yet who feels that either historians or philosophers have laid bare the inner workings of the drama? Rome fell, and great was the fall of it. But why it fell, by what secret mines its defences were breached, and what made its garrison so faint-hearted and ineffectual—this is not so clear.

87. Rome had thus unique sources of strength. What sources of weakness would our observer be likely to detect behind her imposing exterior? The diminution of population is the one which has (rightly I think) most impressed historians: and it is difficult to resist the evidence, either of the fact, or of its disastrous consequences. I hesitate indeed to accept without qualification the accounts given us of the progressive decay of the native Italian stock from the days of the Gracchi to the disintegration of the Empire in the West; and when we read how the dearth of men was made good (in so far as it was made good) by the increasing inflow of slaves and adventurers from every corner of the known world, one wonders *whose* sons they were who, for three centuries and more, so brilliantly led the van of modern European culture, as it emerged from the darkness of the early Middle Ages. Passing by such collateral issues, however, and admitting depopulation to have been both real and serious, we may well ask whether it was not the result of Roman decadence rather than its cause, the symptom of some deep-seated social malady, not its origin. We are not concerned here with the aristocracy of Rome, nor even with the people of Italy. We are concerned with the Empire. We are not concerned with a passing phase or fashion, but with a process which seems to have gone on with increasing rapidity, through good times as well as bad, till the final cataclysm. A local disease might have a local explanation, a transient one might be due to a chance coincidence. But what can we say of a disease which was apparently coextensive with Imperial civilisation in area, and which exceeded it in duration?

I find it hard to believe that either a selfish aversion to matrimony or a mystical admiration for celibacy, though at certain periods the one was common in Pagan and the other in Christian circles, were more than elements in the complex of causes by which the result was brought about. Like the plagues which devastated Europe in the second and third centuries, they must have greatly aggravated the evil, but they are hardly sufficient to account for it. Nor yet can we find an explanation of it in the discouragement, the sense of impending doom, by which men's spirits were oppressed long before the Imperial power began visibly to wane, for this is one of the things which, if historically true, does itself most urgently require explanation.

88. The Romans were brutal while they were conquering the

world: its conquest enabled them to be brutal with ostentation; but we must not measure the ill consequences of their barbaric tastes by the depth of our own disgusts, nor assume the Gothic invasions to be the natural and fitting Nemesis of so much spectacular shedding of innocent blood.

As for the public distributions of corn, one would wish to have more evidence as to its social effects. But even without fully accepting the theory of the latest Roman historian, who believes that, under the then prevailing conditions of transport, no very large city could exist in Antiquity, if the supply of its food were left to private enterprise, we cannot seriously regard this practice, strange as it seems to us, as an important element in the problem. Granting for the sake of argument that it demoralised the mob of Rome, it must be remembered that Rome was not the Empire, nor did the mob of Rome govern the Empire, as once it had governed the Republic.

Slavery is a far more important matter. The magnitude of its effects on ancient societies, difficult as these are to disentangle, can hardly be exaggerated. But with what plausibility can we find in it the cause of Rome's decline, seeing that it was the concomitant also of its rise? How can that which in Antiquity was common to every state have this exceptional and malign influence upon one? It would not in any case be easy to accept such a theory; but surely it becomes impossible when we bear in mind the enormous improvement effected under the Empire both in the law and the practice of slavery. Great as were its evils, they were diminishing evils—less ruinous as time went on to the character of the master, less painful and degrading to the slave. Who can believe that this immemorial custom could, in its decline, destroy a civilisation, which, in its vigour, it had helped to create?

89. In a few generations from the time of which I am speaking the Empire lost its extraordinary power of assimilating alien and barbaric elements. It became too feeble either to absorb or to expel them: and the immigrants who in happier times might have bestowed renewed vigour on the commonwealth, became, in the hour of its decline, a weakness and a peril. Poverty grew as population shrank. Municipal office, once so eagerly desired, became the most cruel of burdens. Associations connected with industry or commerce, which began by freely exchanging public

service for public privilege, found their members subjected to ever-increasing obligations, for the due performance of which they and their children were liable in person and in property. Thus while Christianity, and the other forces that made for mercy, were diminishing the slavery of the slave, the needs of the Bureaucracy compelled it to trench ever more and more upon the freedom of the free. It was each man's duty (so ran the argument) to serve the commonwealth: he could best serve the commonwealth by devoting himself to his calling if it were one of public necessity: this duty he should be required under penalties to perform, and to devote, if necessary to its performance, labour to the limits of endurance, fortune to the last shilling, and family to the remotest generation. Through this crude experiment in socialism, the civilised world seemed to be rapidly moving towards a system of universal caste, imposed by no immemorial custom, supported by no religious scruple, but forced on an unwilling people by the Emperor's edict and the executioner's lash.

90. If there be indeed subtle changes in the social tissues of old communities which make them, as time goes on, less resistant to the external attacks and the internal disturbances by which all communities are threatened, overt recognition of the fact is a step in advance. We have not an idea of what 'life' consists in, but if on that account we were to abstain from using the term, we should not be better but worse equipped for dealing with the problems of physiology; while on the other hand if we could translate life into terms of matter and motion to-morrow, we should still be obliged to use the word in order to distinguish the material movements which constitute life, or exhibit it, from those which do not. In like manner we are ignorant of the inner character of the cell changes which produce senescence. But should we be better fitted to form a correct conception of the life-history of complex organisms if we refused to recognise any cause of death but accident or disease? I admit, of course, that the term 'decadence' is less precise than 'old age': as sociology deals with organisms far less definite than biology. I admit also that it explains nothing. If its use is to be justified at all, the justification must depend not on the fact that it supplies an explanation, but on the fact that it rules out explanations which are obvious but inadequate. And this may be a service of some importance. The facile

generalisations with which we so often season the study of dry historic fact; the habits of political discussion which induce us to catalogue for purposes of debate the outward signs that distinguish (as we are prone to think) the standing from the falling state, hide the obscurer, but more potent, forces which silently prepare the fate of empires. National character is subtle and elusive; not to be expressed in statistics, nor measured by the rough methods which suffice the practical moralist or statesman. And when through an ancient and still powerful state there spreads a mood of deep discouragement, when the reaction against recurring ills grows feebler, and the ship rises less buoyantly to each succeeding wave, when learning languishes, enterprise slackens, and vigour ebbs away, then, as I think, there is present some process of social degeneration, which we must perforce recognise, and which, pending a satisfactory analysis, may conveniently be distinguished by the name of 'decadence'.

91. We may crystallise and re-crystallise a soluble salt as often as we please, the new crystals will always resemble the old ones. The crystals, indeed, may be of different sizes, their component molecules may occupy different positions within the crystalline structure, but the structure itself will be of one immutable pattern. So it is, or seems to be, with these Oriental states. They rise, in turn, upon the ruins of their predecessors, themselves predestined to perish by a like fate. But whatever their origin or history, they are always either autocracies or aggregations of autocracies; and no differences of race, of creed, or of language seem sufficient to vary the violent monotony of their internal history.

92. The fact remains that over large and relatively civilised portions of the world popular government is profoundly unpopular, in the sense that it is no natural or spontaneous social growth. Political absolutism, not political freedom, is the familiar weed of the country. Despots change, but despotism remains: and if through alien influences, like those exercised by Greek cities in Asia, or by British rule in India, the type is modified, it may well be doubted whether the modification could long survive the moment when its sustaining cause was withdrawn.

Now it would almost seem as if in lands where this political type

was normal a certain level of culture (not of course the same in each case) could not permanently be overpassed. If under the excitement of religion or conquest, or else through causes more complicated and more obscure, this limit has sometimes been left behind, reaction has always followed, and decadence set in. Many people indeed, as I have already observed, take this as a matter of course. It seems to them the most natural thing in the world that the glories of the Eastern Khalifate should decay, and that the Moors in Morocco should lose even the memory of the learning and the arts possessed but three centuries ago by the Moors in Spain. To me it seems mysterious. But whether it be easy of comprehension or difficult, if only it be true, does it not furnish food for disquieting reflection? If there are whole groups of nations capable on their own initiative of a certain measure of civilisation, but capable apparently of no more, and if below them again there are (as I suppose) other races who seem incapable of either creating a civilisation of their own, or of preserving unaided a civilisation impressed upon them from without, by what right do we assume that no impassable limits bar the path of Western progress? Those limits may not yet be in sight. Surely they are not. But does not a survey of history suggest that somewhere in the dim future they await our approach?

93. There is no spectacle indeed in all history more impressive than the thick darkness settling down over Western Europe, blotting out all but a faint and distorted vision of Græco-Roman culture, and then, as it slowly rises, unveiling the variety and rich promise of the modern world. But I do not think we should make this unique phenomenon support too weighty a load of theory. I should not infer from it that when some wave of civilisation has apparently spent its force, we have a right to regard its withdrawing sweep as but the prelude to a new advance. I should rather conjecture that in this particular case we should find, among other subtle causes of decadence, some obscure disharmony between the Imperial system and the temperament of the West, undetected even by those who suffered from it. That system, though accepted with contentment and even with pride, though in the days of its greatness it brought civilisation, commerce, and security in its train, must surely have lacked some elements which are needed to foster among Teutons, Celts, and Iberians the qualities, whatever these may be, on which sustained progress depends. It

was perhaps too oriental for the Occident, and it certainly became more oriental as time went on. In the East it was, comparatively speaking, successful. If there was no progress, decadence was slow ; and but for what Western Europe did, and what it failed to do, during the long struggle with militant Mohammedanism, there might still be an Empire in the East, largely Asiatic in population, Christian in religion, Greek in culture, Roman by political descent.

94. What grounds are there for supposing that we can escape the fate to which other races have had to submit ? If for periods which, measured on the historic scale, are of great duration, communities which have advanced to a certain point appear able to advance no further ; if civilisations wear out, and races become effete, why should we expect to progress indefinitely, why for us alone is the doom of man to be reversed ?

To these questions I have no very satisfactory answers to give, nor do I believe that our knowledge of national or social psychology is sufficient to make a satisfactory answer possible.

95. I assume that the factors which combine to make each generation what it is at the moment of its entrance into adult life are in the main twofold. The one produces the raw material of society, the process of manufacture is effected by the other. The first is physiological inheritance, the second is the inheritance partly of external conditions of life, partly of beliefs, traditions, sentiments, customs, laws, and organisation—all that constitute the social surroundings in which men grow up to maturity.

I hazard no conjecture as to the share borne respectively by these two kinds of cause in producing their joint result. Nor are we likely to obtain satisfactory evidence on the subject till, in the interests of science, two communities of different blood and different traditions consent to exchange their children at birth by a universal process of reciprocal adoption. But even in the absence of so heroic an experiment, it seems safe to say that the mobility which makes possible either progress or decadence, resides rather in the causes grouped under the second head than in the physiological material on which education, in the widest sense of that ambiguous term, has got to work. If, as I suppose, acquired qualities are not inherited, the only causes which could fundamentally modify the physiological

character of any particular community are its intermixture with alien races through slavery, conquest, or immigration ; or else new conditions which varied the relative proportion in which different sections of the population contributed to its total numbers. If, for example, the more successful members of the community had smaller families than the less successful ; or if medical administration succeeded in extinguishing maladies to which persons of a particular constitution were specially liable ; or if one strain in a mixed race had a larger birth-rate than another—in these cases and in others like them, there would doubtless be a change in the physiological factor of national character. But such changes are not likely, I suppose, to be considerable, except, perhaps, those due to the mixture of races ;—and that only in new countries whose economic opportunities tempt immigrants widely differing in culture, and in capacity for culture, from those whose citizenship they propose to share.

96. I at least find it quite impossible to believe that any attempt to provide widely different races with an identical environment, political, religious, educational, what you will, can ever make them alike. They have been different and unequal since history began ; different and unequal they are destined to remain through future periods of comparable duration.

But though the advance of each community is thus limited by its inherited aptitudes, I do not suppose that those limits have ever been reached by its unaided efforts. In the cases where a forward movement has died away, the pause must in part be due to arrested development in the variable, not to a fixed resistance in the unchanging factor of national character. Either external conditions are unfavourable ; or the sentiments, customs and beliefs which make society possible have hardened into shapes which make its further self-development impossible ; or through mere weariness of spirit the community resigns itself to a contented, or perhaps a discontented, stagnation ; or it shatters itself in pursuit of impossible ideals, or, for other and obscurer reasons, flags in its endeavours, and falls short of possible achievement.

Now I am quite unable to offer any such general analysis of the causes by which these hindrances to progress are produced or removed as would furnish a reply to my question. But it may be worth noting that a social force has come into being, new in magnitude if not in kind, which must favourably modify such

hindrances as come under all but the last of the divisions in which I have roughly arranged them. This force is the modern alliance between pure science and industry. That on this we must mainly rely for the improvement of the material conditions under which societies live is in my opinion obvious, although no one would conjecture it from a historic survey of political controversy.

97. Are we to ignore what religion has done for the world because it has been the fruitful excuse for the narrowest bigotries and the most cruel persecutions? Are we to underrate the worth of politics, because politics may mean no more than the mindless clash of factions, or the barren exchange of one set of tyrants or jobbers for another? Is patriotism to be despised because its manifestations have been sometimes vulgar, sometimes selfish, sometimes brutal, sometimes criminal? Estimates like these seem to me worse than useless. All great social forces are not merely capable of perversion, they are constantly perverted. Yet were they eliminated from our social system, were each man, acting on the advice, which Voltaire gave but never followed, to disinterest himself of all that goes on beyond the limits of his own cabbage garden, decadence, I take it, would have already far advanced.

98. I do not myself believe that this age is either less spiritual or more sordid than its predecessors. I believe, indeed, precisely the reverse. But however this may be, is it not plain that, if a society is to be moved by the remote speculations of isolated thinkers, it can only be on condition that their isolation is not complete? Some point of contact they must have with the world in which they live, and if their influence is to be based on widespread sympathy, the contact must be in a region where there can be, if not full mutual comprehension, at least a large measure of practical agreement and willing co-operation. Philosophy has never touched the mass of men except through religion. And, though the parallel is not complete, it is safe to say that science will never touch them unaided by its practical applications. Its wonders may be catalogued for purposes of education, they may be illustrated by arresting experiments, by numbers and magnitudes which startle or fatigue the imagination; but they will form no familiar portion of the intellectual furniture of ordinary men unless they be connected, however remotely,

with the conduct of ordinary life. Critics have made merry over the naïve self-importance which represented man as the centre and final cause of the universe, and conceived the stupendous mechanism of nature as primarily designed to satisfy his wants and minister to his entertainment. But there is another, and an opposite, danger into which it is possible to fall. The material world, howsoever it may have gained in sublimity, has, under the touch of science, lost (so to speak) in domestic charm. Except where it affects the immediate needs of organic life, it may seem so remote from the concerns of men that in the majority it will rouse no curiosity, while of those who are fascinated by its marvels, not a few will be chilled by its impersonal and indifferent immensity.

For this latter mood only religion or religious philosophy can supply a cure. But, for the former, the appropriate remedy is the perpetual stimulus which the influence of science on the business of mankind offers to their sluggish curiosity. And even now I believe this influence to be underrated. If in the last hundred years the whole material setting of civilised life has altered, we owe it neither to politicians nor to political institutions. We owe it to the combined efforts of those who have advanced science and those who have applied it. If our outlook upon the Universe has suffered modifications in detail so great and so numerous that they amount collectively to a revolution, it is to men of science we owe it, not to theologians or philosophers. On these indeed new and weighty responsibilities are being cast. They have to harmonise and to co-ordinate, to prevent the new from being one-sided, to preserve the valuable essence of what is old. But science is the great instrument of social change, all the greater because its object is not change but knowledge; and its silent appropriation of this dominant function, amid the din of political and religious strife, is the most vital of all the revolutions which have marked the development of modern civilisation.

99. The conclusions at which I provisionally arrive are that we cannot regard decadence and arrested development as less normal in human communities than progress; though the point at which the energy of advance is exhausted (if, and when it is reached) varies in different races and civilisations: that the internal causes by which progress is encouraged, hindered, or reversed, lie to a great extent beyond the field of ordinary political discussion, and are not

easily expressed in current political terminology : that the influence which a superior civilisation, whether acting by example or imposed by force, may have in advancing an inferior one, though often beneficent, is not likely to be self-supporting ; its withdrawal will be followed by decadence, unless the character of the civilisation be in harmony both with the acquired temperament and the innate capacities of those who have been induced to accept it : that as regards those nations which still advance in virtue of their own inherent energies, though time has brought perhaps new causes of disquiet, it has brought also new grounds of hope ; and that whatever be the perils in front of us, there are so far no symptoms either of pause or of regression in the onward movement which for more than a thousand years has been characteristic of Western civilisation.

"A Defence of Philosophic Doubt,"

BEING

"An Essay on the Foundations of Belief".

[Published in 1879.]

[The following extracts from this work are printed under the headings of the respective Chapters from which they are taken. Other extracts from it appear under the sections "Naturalism," and "Science, and Science and Theology".]

On the Idea of a Philosophy.

100. However restricted the range of possible knowledge may be, Philosophy can never be excluded from it. For unless the restriction be purely arbitrary, there must be reasons for it; and it is the systematic account of these reasons which is here called philosophy. So that even if it should turn out that Metaphysics is an illusion, and only 'positive' knowledge is attainable, this discovery would be so far from destroying philosophy that it is only by philosophy that it could be established.

101. No doubt, in constructing a philosophy, a previous psychological inquiry may be required. It may be necessary to acquaint ourselves with the various modes by which we arrive at conviction, before we can select those which are legitimate. But what we must not do, and what we are very apt to do, is to suppose that by performing the first operation satisfactorily, we absolve ourselves from performing the second at all. In the face of modern discovery we have continually to recollect that no progress made in tracing the history of opinions, no development of the theory of association of ideas, no application of the doctrine of evolution to mind, however much they may prepare the ground for a philosophy, add, or can add, one fragment to its structure.

Thus, it is never a final answer to philosophy to say of a particular belief, it is innate, connate, empirical, or, *a priori*, the result of inheritance, or the product of the association of ideas. Psychology is satisfied by such replies, but to make psychology the rational foundation for philosophy, is to make a department of science support that on which all science is by definition supposed

to rest. It is strictly impossible that any solution of the question 'How came I to believe this?' should completely satisfy the demand 'Why ought I to believe it?' though, especially in the case of derivative beliefs, it may go some way towards it. In the case of what profess to be ultimate beliefs, discussions as to their origin are either philosophically irrelevant, or else prove to demonstration that they are not ultimate.

102. While it is evidently not the business of philosophy to account for ultimate axioms and modes of inference, it is also clear (though it may be hardly necessary to make the remark) that it is not its business to *prove* them. To prove any conclusion is to show that it legitimately follows from a true premise; so that if we were obliged to perform this operation for our axioms and modes of inference before they were to be received as ultimate, we should be driven either to argue in a circle or to an infinite regress. Indeed, this will sufficiently appear if we reflect that all we mean by ultimate is 'independent of proof'.

But if philosophy is neither to investigate the causes nor to prove the grounds of belief, what, it may be asked, is it to do? Its business, as I apprehend it, is to disengage the latter, to distinguish them from what simulates to be ultimate, and to exhibit them in systematic order.

What is meant here by disengaging the grounds of belief in contradistinction to proving them, will appeal more clearly if we consider what is done by deductive logic. Deductive logic, apart from the practical rules with which it is encumbered, is (according to the terminology here employed) neither an art nor a science, but a systematic account of an ultimate mode of inference by which it may be distinguished from all other modes, whether legitimate or illegitimate, whether ultimate or derivative: it is therefore by definition a branch of philosophy.

103. Every kind of logic, if it is to be philosophical, must be formal. The whole object of a philosophy of inference being to distinguish valid and ultimate inferences from those which are invalid or derivative, this can only be done either by exhibiting the common form or forms of such inferences, or (on the violent hypothesis that they have no common forms) by enumerating every concrete instance. To enunciate a form of inference which shall include

both valid and invalid examples, can at best only have a psychological interest; philosophically, it is only misleading. These remarks will be found of importance when we come to consider theories of inference other than syllogistic ones.

The same remark applies, *mutatis mutandis*, to any classification of ultimate propositions.

There is no ground *a priori* (i.e. following from the idea of a philosophy) for supposing that ultimate judgments are all general or all particular. Of course, if they are the latter, there must be some legitimate mode of reasoning from particulars without the help of general propositions.

104. The most ordinary view of scientific philosophy I take to be this: that science, in so far as it consists of a statement of the laws of phenomena, is founded entirely on observation and experiment; that observation and experiment, in fact, furnish not only the occasions of scientific discovery, but also the sole evidence of scientific truth,—evidence, however, which is considered by most men of science not only amply sufficient, but also as good as any which can be well imagined. Considering, however, what a large number of persons there are who suppose themselves to derive all their knowledge from these sources, it is somewhat remarkable that we should have so little information respecting the precise method by which this feat is to be accomplished. At first sight, indeed, the problem may not seem a hard one. We are constantly drawing inferences from experience by methods which do not appear to be very abstruse; and all that it may seem necessary to do is to extend the operation of these methods to the utmost limits of knowledge—to prove, in other words, the most general propositions respecting the course of Nature in exactly the same manner as we are accustomed to prove the more limited truths by which we guide our daily life.

Whether this is possible or not is the point which I propose to examine in the next section. And in doing so I cannot pursue a more convenient course than to take as my text Mr. Mill's "Logic," which professes to solve this initial problem in an affirmative sense.

Empirical Logic.

105. Now, when a logician puts any mode of inference on its trial, he has to decide two questions concerning it, and, so far as I

can see, only two. First, does it involve a progress from what is known to what is not known? (the answer to this question decides whether it is or is not a mode of inference). Secondly, if there is a progress from the known to the unknown, is that progress justified? (the answer to this question decides whether the mode of inference is legitimate). The first question is, so to speak, a question of Fact; the second question is one of Law. Now, taking in the case of the Syllogism the second question first, no one has ever thought of denying that *if*, in that form, there is any inference at all, it is legitimate. The conclusion may not be inferred from the premises; but, at any rate, if *these* are true, *it* is true. So that the only question that remains to be decided is the question of fact. Do we, as a matter of fact, when we employ a syllogism, ever proceed from what we do know or think we know to what we do not know? This question can certainly only be answered in the affirmative; and, indeed, it is so answered by Mill himself—at least by implication.

106. So far, then, it appears to me that on his own data Mr. Mill uses misleading language about the functions of the syllogism; but if this was all, I should not so long have troubled the reader about the matter. If the controversy turned simply on whether we should use the word 'infer' or the word 'interpret,' whether we should talk of 'drawing a conclusion from' or of 'drawing a conclusion according to,' a formula, the matter might be left to professed logicians, with only this recommendation—that if they decide in each case on the second alternative, it would be well to revise the common definition of the word 'infer'.

The really important thing which gives a certain amount of plausibility to Mr. Mill's theory of the syllogism is the doctrine that all inference is from particulars; and this is mixed up in such a manner with the general argument which I have been discussing, that careless readers carry away, I am convinced, a sort of general idea that it follows from taking the correct—by which they mean Mr. Mill's—view of the functions of the syllogism. The truth is that Mr. Mill's criticism of the ordinary theory of the syllogism, where it is not merely verbal, so far from proving this doctrine, depends on it for its whole effect.

107. The substantial part, in short, of Mill's attack on the

sylogism amounts to this—that in every case where we deduce a conclusion from a general proposition, the ultimate grounds for our believing that conclusion is a process of inference by which both the general proposition *and* the conclusion can be co-ordinately proved ; and this again is founded on the doctrine that all inference is from particulars.

Before following out this important philosophic doctrine, as held by Mr. Mill, to some of its results, I have three general remarks to make on it. Firstly, whether it be true or untrue, it does not lie within the province of Logic either to prove it or to assume it. As Mr. Mill himself very properly remarks : "With the original data or ultimate premises of our knowledge ; with their number or nature . . . logic, in a direct way at least, has, in the sense in which I conceive the science, nothing to do. These questions are partly not a subject of science at all, and partly that of a very different science." In the second place, whether the doctrine be true or untrue, it is impossible in any general way to prove it. It is possible, no doubt, for a man to go over all his beliefs in turn, and find to his own satisfaction that whenever they are not immediate, they are ultimately inferred from particulars ; but he can hardly show that this is a necessary characteristic of all conclusions. Something would be done in this direction if it could be proved that there was no satisfactory method known by which inferences could be drawn from general propositions : unfortunately, it seems at present easier to show this of particular ones.

My third remark is, that if the views on ethics expressed in the Appendix are correct, the whole of our morality must be deduced from general propositions which are not, and which cannot be, themselves inferences, from particulars. To ethical inferences therefore, Mr. Mill's theory is altogether inapplicable.

Let us, however, assume with Mr. Mill that all our knowledge springs ultimately from particular experiences, and that there is therefore but one fundamental type of inference—namely, inference from particulars by 'simple enumeration'—what rules has he to give us by which we may judge how far in any given case the operation of inferring is legitimately performed ? We should expect beforehand that in a work on logic, consisting of two large volumes, and founded on this particular view of inference, the systematic account of such rules would form a considerable part. This is not so. What Mr. Mill has to say on the subject is scattered up and down his book, chiefly in connection with certain concrete examples,

and must be collected for purposes of criticism from these ; so that we have the singular phenomenon of a work professing to treat mainly of inference, in which the universal type of inference is treated of only incidentally !

108. The distinction between sequences which are the result of direct causation and sequences which depend on the collocation of causes, has no meaning unless we assume a universe governed by causation ; and the existence of such a universe is the very thing we want to demonstrate. Grant all that Mr. Mill or Mr. Bain could desire—and a great deal more than could be proved—grant that at every time and in every place throughout that very limited portion of time and space open to human observation every event has had a cause, and every cause has been always followed by the same event, we should still be no nearer proving that an inference founded on these particulars was more likely to be accurate than an inference founded on any other particulars, so long as the only distinction between the two assumed a universe of the very kind we wished to prove. And this is precisely what Mr. Mill's distinction does assume. It is dangerous in an ordinary way (he says) to infer from particulars ; but we may do so safely if our induction is sufficiently wide. And why? Because we shall then be sure that what we have observed is not due to chance or the accidental collocation of causes, but to the direct operation of causation. This is doubtless a most excellent canon of criticism, and one which may enable us to judge of the worth of many inferences 'by simple enumeration'. There is, however, one such inference which it can never enable us to judge of, and that is the Law of Causation itself.

This expedient for placing the empirical argument in favour of the uniformity of nature on a sure basis may seem rather clumsy, but the truth is, that, though not good, it is as good as any other which it was possible for Mr. Mill, with his views about the sources of knowledge, to suggest.

109. In the foregoing attack on Mr. Mill's view of inference, in so far, at least, as it is applied to the proof of the law of universal causation, I have said nothing which, as I imagine, has not, in one shape or another, suggested itself to many students of his logic. But I am anxious to explain that the fact of singling him out for criticism

implies a recognition of his merits even more than of his defects. If his empirical view of the universe is peculiarly easy to attack, it is not because his method of proof is less satisfactory than that of other empirical philosophers, but because he saw more clearly, or at any rate allowed his readers to see more clearly, what it was that had to be proved, and the only method by which, on purely empirical data, even the semblance of proof was possible. If he failed (and I think he failed completely), it was because he attempted what, in the present state of our knowledge, cannot, I believe, be accomplished.

It is impossible to deny that science is only possible if we assume the law of universal causation; that, if observation and experiment be the sole foundation of knowledge, the law of universal causation must be proved from particulars; that Mr. Mill has stated (or, if you please, has avoided stating) the method of proof from particulars as ingeniously as can well be imagined; and that his statement (or want of statement) cannot in reality stand for a moment against hostile criticism. The most important of these points I have proved, as I think, in the course of the preceding remarks, the rest of them I hope the reader will admit without proof; and I now, therefore, go on to show, in a few words, that even if legitimate inference from particulars were possible, and the law of causation were proved, it is by no means the adequate foundation for the superstructure of science which Mr. Mill, and those who accept Mr. Mill's general line of thought, appear to imagine.

Induction.

110. As in the case of the method of difference, the reasoning is vitiated by the fact that the universe never differs in two successive moments in only one particular, so the method of agreement fails, not only for the reason given by Mr. Mill, but because the universe, at two successive moments, never agrees in only one particular. And neither the one canon nor the other shows us any grounds for selecting from among the countless points of difference or agreement that one which is the cause or the effect of which we are in search.

I have stated this objection as against Mill, but it must not be supposed that it has only weight against Mr. Mill's statement of the law of induction. It is equally applicable to the ordinary version of the means whereby we obtain knowledge by experiment and observation, of which view, indeed, Mr. Mill merely attempts a syste-

matic exposition. If we see a man swallow the contents of a phial, and immediately fall down dead, we conclude that his death is the consequence of what he has drunk ; and we do so undoubtedly on the grounds stated in the canon of the Method of Difference. All other circumstances seemed to remain the same except these two—his drinking the liquid and his death ; we therefore pair them off as cause and effect. The smallest reflection, however, shows that there must have been an indefinite number of events which, like the drinking of the liquid, immediately preceded the death of the man ; what is not so plain is the principle which may justify us in assuming, that though they are antecedents of the effect, they are no part of its cause.

Now there are two ways in which this difficulty or ambiguity in the ordinary version of inductive reasoning may be met. It may, in the first place, be asserted, that by previous observation or experiment we may, and commonly do, arrive at some conclusions which enable us with more or less confidence to select from among the phenomena which precede an event the one which produced it. For example, we know that there are many drugs which taken even in small doses produce instant death ; and this is a consideration which materially influences us in affirming, in the case I have just used for illustration, that the drinking of the contents of the phial, and the sudden death of the man, were not mere coincidences, but were events connected by causation. But though it may be admitted that in fact we do thus habitually use our knowledge of the general laws of Nature to guide us in the interpretation of particular observations or experiments, this is no justification of inductive methods in the abstract, since these general laws of Nature must, on any empirical theory, in the first instance themselves have been arrived at by induction. It is therefore plain that, unless we are doomed to wander in an endless logical circuit, some inductions must be valid which derive, or at all events require, no support from any extraneous authority.

111. Now if it be admitted, as in theory I think it must be admitted, that every phenomenon which has always accompanied A is as likely as not to be an essential part of the cause of B ; it appears to follow that our expectation that B will in the future follow A must depend in part on our expectation that each of the phenomena which have always accompanied A will do so again. But these

phenomena are in number infinite. We know, or might know, thousands of them; yet those we know are entirely lost in the vast multitude of those which we do *not* know, but which we have every reason to believe exist in the infinity of space. Because, therefore, we are unable to eliminate the accompaniments of A which are not necessary for the production of B, we have now to face the further difficulty of determining the probability that these accompaniments of A will co-exist with it in the future. But this problem puts us back precisely into the position from which we were trying to escape. In order to solve it, we have to traverse exactly the same ground as we had when we were inquiring into the methods by which the causes of B were to be discovered. For a case of *persistence* (and of course still more obviously of *recurrence*) is in reality a case of *causation*. The persistence of the planet Mars, for example, through another year depends upon causes of which its existence at this moment is only one. What are these other causes? and what is the probability of their being in operation for another year? These are the very questions we asked when we were trying to determine the method by which the antecedents of B might be discovered, and for which we could find no answer. The continued existence of the planet Mars may, for anything we know to the contrary, depend upon the continued existence of the moon—a phenomenon which, as far as our experience goes, has always co-existed with it. What then is the probability of the moon's continuing to exist? About this precisely the same series of questions may be asked, meeting with precisely the same series of unsatisfactory answers. So that we find ourselves finally in this position.—Experiment and observation, if conducted under favourable circumstances, can determine with a probability approaching to certainty, that a phenomenon A is causally connected with a phenomenon B. But neither experiment nor observation can give us the smallest information as to whether any of the infinite multitude of phenomena which accompany A whenever B is produced, are or are not necessary parts of the cause of B; nor can they tell us—and for exactly the same reason—anything about the probability of a single one of these accompaniments of A, however well we may be acquainted with it, continuing to accompany it in the future; still less can they assist us in computing the chances of the recurrence or persistence of those essential parts of the cause of B which may exist in indefinite numbers, but of which we know absolutely nothing. In other words—granting that the course of Nature is uniform, no scientific methods, by the help of this principle

alone, can give us any assurance that the laws of Nature, which we suppose ourselves to have discovered, will continue to operate in the future.

What additional principle, then, must be established in order that this assurance may be obtained? It is evident in a general way that the principle, whatever it may be, must be a *principle of elimination*; that is, it must enable us to eliminate from among the innumerable antecedents of a phenomenon those which we may be certain have nothing whatever to do with its occurrence. But I confess myself altogether unable to formulate such a principle, much less to prove it. There is, no doubt, a practical instinct, common both to the unscientific and to the scientific observer, which induces men to ignore as much as possible the share which either very remote or very permanent phenomena may have in the production of the effects for which they are trying to account. Nobody, for example, seriously imagines that the existence of a star in the Milky Way is a necessary concomitant to a spark before it can explode a barrel of gunpowder. On the other hand, this instinct, though it is so strong that it is not easy gravely to discuss any theory flagrantly inconsistent with it, can hardly be accurately defined, and certainly cannot always be trusted. The most distant object that has ever been perceived has had some appreciable effect on the affairs of this planet—since its perception is in itself such an effect; and if we consider permanence,—the sun, which has accompanied every phenomenon ever experienced, is an essential and not very remote link in the chain of causes, by which all the events that occur on the surface of the globe are produced.

It is evident, therefore, that the difficulty of proving the uniformity of Nature, and the law of universal causation, is not the only obstacle which stands in the way of a satisfactory empirical philosophy. Even granting the truth of these great principles, it is not easy to frame with their help an inductive logic, which shall really enable us to argue to unobserved instances; and, I shall show in the next chapter, could we prove such laws, it would, to say the least, by no means be sufficient by itself to justify us in holding the complete scientific creed in its ordinary shape.

Historical Inference.

112. In so far as science is founded upon observation and experiment (and on the most extravagantly *a priori* theory these

must form an essential part of its groundwork), it is plain that all the propositions stating *laws* (which I will call the abstract part of science) must ultimately be, to a certain extent, founded on the propositions stating *facts*—i.e. on the *concrete* part of science. What is perhaps less plain, but what is no less certain, is, that almost the whole of our knowledge of concrete science is in like manner founded upon abstract science. As regards facts that are still in the future, this is sufficiently obvious. Leaving supernatural prophecy out of account, our sole means of foretelling what is to come depends upon our knowledge of natural laws; and this indeed is, according to some people, the chief reason which makes natural laws worth investigating. A little reflection shows that it is equally true of facts that have already occurred, whether those facts be what are ordinarily called scientific, as, for example, the existence of the glacial epoch, or whether they are what are ordinarily called historical, as, for example, the death of Julius Cæsar.

Massing these together under the common name ‘historical,’ we may say generally that a law of Nature is an essential part of every inference whatever by which we arrive at facts which are occurring or have occurred, other than those of which we are immediately informed by perception or memory; from which it may be deduced that every principle which is required to establish a law must be required to establish a historical fact, though it does not follow, of course, that these principles will be *sufficient*.

113. The possibility of history, as we have seen, rests on the possibility of eliminating all sets of causes but one of existing effects; let us then at first take into consideration only *one* effect, and let us suppose that it *must* have been produced by one of two causes, but *might* have been produced by either. Under these conditions, what we have to determine is the ground which may justify us in asserting, as we so often do assert, that one of them was the actual historical cause rather than the other. To fix our ideas, let us take a concrete case. A collection of flints broken into shapes rudely resembling arrow-heads is found during the course of some excavation. No human being (who need be considered) doubts under these circumstances that one of the causes of this striking effect was the will and intelligence of man, though at the same time it is not to be denied that each one of these arrow-heads, and therefore all of them, *might* be the product of that

unknown collection of mechanical causes which in this case, for convenience, we may call accident. Why do we unhesitatingly reject accident in favour of intelligence? The answer is ready. The probabilities are infinitely in favour of the latter—that is, the chances against accident are enormously, if indefinitely, greater than the chances against intelligence. This answer, which certainly commends itself to common sense, suggests, however, a further inquiry. On what grounds do we form this estimate of the comparative probability of the two causes? It is plain that we ought to have *some* grounds. The particular value that we assign to the chance of one or other of any two possible causes being the actual cause cannot be determined by mere abstract speculation, but must be derived from some theory respecting the conditions under which these causes were likely to have acted. It is not difficult to see that in the example before us these conditions are supposed to be, on the whole, similar to those which obtain now. It is assumed that an arrow-head shape *was*, as it *is*, merely one of an indefinite number of other forms, all of which are produced, in equal or greater numbers, by mechanical causes, and that it *was*, as it *is*, a form which man in a state of savagery finds useful, and is therefore likely to manufacture; and on this hypothesis it is quite true that the chances in favour of a human origin are enormous. But it is no less evident that this hypothesis is itself the statement of a historical fact; that it must, therefore, involve an inference from effects to causes; that these effects may again be conceivably due to more than one set of causes; that we must again select one set of causes rather than another on grounds of probability, and again be obliged, in order to establish that probability, to make a new inference from effects to causes. If, now, we imagine this process carried on indefinitely, we may suppose ourselves at last to arrive at the deduction of the totality of causes from the totality of effects. Supposing, as seems likely enough, that the totality of effects might conceivably have been produced by more than one selection or arrangement of causes, on what principle are we now to choose between these conflicting possibilities? Most of them, perhaps all except the one we commonly select, would, it can scarcely be doubted, seem in the highest degree extravagant and improbable. But their extravagance is merely the result of the manner in which they strike on our imagination; and as for their improbability, I am altogether at a loss to see how, from our principles, any estimate of their probability at all like what we require can be formed. Since we are

dealing with the totality of effects, it cannot clearly be founded on any *further* inference from effect to cause, and no other foundation seems to me possible, except by the intervention of some new scientific axiom.

114. It is commonly said that the authenticity of any document may be shown by two kinds of evidence—the external and the internal; and since internal evidence would be defined as evidence drawn from the document itself, it might seem natural to conclude that such evidence really exists, and that it might provide us with the principle of which we are in search. In strictness, however, this is not the case. From the character of any document *alone* no conclusion can be drawn in favour of its genuineness, provided the bare possibility of its forgery be admitted. Supposing, for example, it is said that the style and character of thought of some book show it to have been the product of a certain age and country—this implies a knowledge of that age and country which, if it is to be admitted as evidence, must clearly be derived from some other source than the book it is intended to vindicate; and this is equally true of any possible characteristic which can be adduced either for or against any theory respecting date of composition or authorship. It would appear, indeed, at first sight, as if the contents of a book might be so unlike the sort of things people invent, or so difficult to make self-consistent if they were invented, that its genuineness could be concluded from the mere consideration of these peculiarities. But even this inference involves some hypothesis respecting the condition of the world at the supposed date of authorship. It supposes that the ability to invent and the desire to invent existed at that time in such degrees as to make invention of this sort highly improbable; but since this estimate cannot be founded on the document itself without a *petitio principii*, it must be founded either on some hitherto undiscovered axiom, or on other documents, or on other non-documentary phenomena. The first of these possibilities I reserve for discussion later on. The last is excluded by hypothesis. There remains, therefore, the second. But the smallest consideration will show that all the remarks just applied to a single document apply equally well to any number of documents taken together. Once admit the possibility of their forgery, the improbability of such an event can only be deduced from facts which are themselves deductions from all or some of these documents, and

which consequently cannot in this matter be used as a basis of inference at all. It may be stated, therefore, generally that if we start from the arbitrary hypothesis with which I began this illustration, then, first, it is quite as probable that all history should be fictitious as that some of it should be true; and, secondly, as a necessary corollary, if two versions of it are mutually exclusive, it is impossible to say which is the more likely.

The general principle from which this is a deduction seems to me, indeed, almost self-evident when clearly stated. It would run thus:—'if more than one cause can produce a given effect, it is impossible, by the mere contemplation of the effect, to say by what cause it was probably produced'. The same is true of 'groups of effects,' and 'groups of causes'. It is also true of the 'totality of effects,' and the 'totality of causes'. Now, if the 'totality of effects' means existing effects, the 'totality of causes' is, if not history, at all events the necessary foundation of history. Therefore, the chances against any particular version of history being true is simply as the number of *possible* versions of it is to one.¹

It will be a fitting transition to the next stage in this discussion if I here notice the interesting effect which the existence of one particular cause has on the validity of all historical inferences—I mean the universal first cause, whether that be the unknown x of certain philosophers, or the personal God of the theologians.

It is of the essence of this idea of a First Cause that everything which exists—in other words, the whole of the premises on which we found our knowledge of history—is produced by It directly or indirectly. Moreover, it is clearly impossible to show that, while It could produce one set of phenomena directly, It was only able to produce another set indirectly, i.e., by means of some phenomenal cause intervening. From this it follows that there is no period of history at which creation might not have taken place; nor am I able to see that, if it did take place, it would do so at one period more probably than at another. In other words, whatever date in the past we select, there are always two causes which are equally likely to have produced the phenomena then existing: the one is the group of phenomena which might have produced them according to known laws; the other is the First Cause. It may be worth noting that these remarks are true not only of the metaphysical substance, whether personal or not, which is the origin of all things, but also

¹ Strictly speaking—as the number of possible versions of it *minus* unity are to one.

of any phenomena which may be assumed to have produced the present order of Nature, but of whose laws we are ignorant. Supposing, for example, it was shown that, by tracing back the course of events through time, we arrived at a point where the recognised laws of Nature failed us,¹ and where we were in consequence compelled to assume a new, and, of course, unknown set of antecedents acting in unknown ways; in that case we should not be justified in supposing that the point where the known causes failed us was the point where the unknown causes came into operation. The probabilities, in fact, are infinitely the other way. For since these causes *are* unknown, we clearly cannot say that their properties are such as to make their appearance more probable at one time than at another. That they must appear at some period or other is shown, according to our hypothesis, by the insufficiency of established laws when followed up beyond a certain point; but since, also by hypothesis, we can predicate nothing of these unknown causes, except their existence and their power to produce the present order of Nature, it would seem that they are quite as likely to have exercised that power at any one instant of time as at any other. . . . Existing facts are our sole (particular) evidence for historic facts, and if our general principles can get nothing definite out of them, science at all events has nothing further to suggest.

115. This may be a convenient place at which to touch on an objection which the reader accustomed to regard the universe from a mechanical point of view may be tempted to raise. He may say, 'I utterly deny the possible plurality of causes, on the existence of which depends so much of your argument. I hold that the world may be regarded as a system of particles obeying mechanical laws, that it is therefore quite as possible to reconstruct the past, as it is to construct the future from the present; and that both operations may, in theory, be carried out with absolute certainty.' Since, however, this theoretical possibility can never by any accident be realised in practice, it may, for my purposes, be neglected. I write for human beings with human powers of calculation. But besides this, it is by no means proved, I believe, to the satisfaction of men of science that the world *is* a purely mechanical system. I am, therefore, justified in assuming, with the majority of scientific philosophers, that while

¹ This speculation was suggested by certain physical theories respecting the distribution of heat.

one kind of cause can only have one kind of effect, one kind of effect may have more than one kind of cause.

116. Though philosophers never hesitate to appeal to the 'Simplicity of Nature' when it suits their convenience, I am not aware that any of them have thought fit to supply us with a proof of its reality.

Though there seems, then, to be no obvious or recognised principle which will exactly serve our purpose, there must nevertheless be some—perhaps unformulated—notion which lies at the root of existing historical judgments, and which on analysis may furnish us with the principle of which we are in search.

117. Since, then, it does not seem easy even to formulate the axiom or axioms which are required in addition to the law of causation to justify our ordinary historic judgments, the second step in the philosophy of the subject, by which we seek to prove or classify them (according as they are derivative or ultimate), cannot be attempted. The truth of the matter appears to be that history rests on a kind of scientific instinct, none the less healthy because it is not very reasonable. This, fortunately, is quite vigorous enough to resist the attacks of any merely philosophic scepticism, as any one anxious to try the experiment may discover for himself provided he will ask the next man of science he meets whether (say) 4000 B.C. is not as likely as any other assignable date for the commencement of this Earth as a separate planet. If the inquirer is fortunate enough to get any answer at all to so absurd a question, he will probably be told that no known causes are adequate to the production of existing effects in so short a time. To which it may be replied, that there is no particular reason for supposing that known causes have been the only ones in operation. On this the man of science may not improbably rejoin that gratuitous suppositions ought to be avoided—that the *Deus ex machinâ* is to be excluded as much from science as from art. If he were further asked the grounds of this canon, I do not know exactly what would be his answer, though I know that whether he could find an answer or not, the strength of his convictions would not be in any way diminished.

118. It is commonly admitted that a law of Nature depends for

its generality upon the law of universal causation,—in other words, is extended to unobserved instances solely by means of that law; from which it follows that the law of universal causation is a necessary premise in every inference by which we arrive at historical facts. What I have been hitherto attempting to show is, that even assuming this premise to be true, there is an inevitable ambiguity in the inference; what I now wish to insist on is, that whether those views be true or false, this at any rate is certain, that if the law of universal causation be founded on experience at all, that experience must be extremely limited. Empirical philosophers, dilating on the accumulated evidence we have for this law, are in the habit of telling us that it is the uncontradicted result of observations extending through centuries; but they have omitted to notice that unless we first believe in the law, we can have no reason for believing in the observations. Turn the matter as we will, the fact that mankind have been observing, or doing anything else, for centuries, cannot be to any of us a matter of direct observation or intuition. It must, therefore, be an inference; and if an inference from experience, the only experience it can be inferred from is the immediate and limited experience of each individual; this, therefore, either at one remove or two, is the only possible empirical foundation for the law of causation, or any other general principle.

This argument does not show, of course, that empirical philosophy is false; but it does show, beyond question, that it is not plausible. Whatever be its philosophic value, there is certainly something consolatory to common-sense in the idea that our convictions rest on a broad basis of experience. There is something practical in the very sound of a phrase which implies a method of judging that most satisfactorily distinguishes us from the pre-Baconian philosophers. But when it becomes evident that this 'broad basis' itself rests on the exceedingly narrow basis of individual experience, when it is once understood that what I perceive, and remember having perceived, is my sole ground for believing that people in past ages perceived anything at all, empiricism certainly loses much of its dignity, though its philosophic value remains, perhaps, very much what it was before.

Transcendentalism.

119. That the pure empiricism still in fashion among scientific philosophers leads naturally to scepticism is a fact which has been familiar to certain schools of thought ever since Hume presented

it to the world stripped of its plausibilities. It is hardly to be believed that so subtle a thinker did not himself perceive the ultimate consequences of his reasoning. He must have been perfectly aware that on his system a philosophy of science was impossible; nevertheless, his "Essay on Miracles," and occasional announcements, such as that with which he ends his "Enquiry Concerning the Human Understanding," appear to have quite convinced natural philosophers that his scepticism merely undermined religion—a result which to most of them was a cause of very moderate uneasiness. If, however, they ignored, and still ignore, the wider reach of that engine of destruction, it has not been for want of telling.

Hume himself makes no effort to conceal it, and the sneer with which he informs the students of science that theirs is the only kind of knowledge worth pursuing, is scarcely less obvious than that with which he tells the theologian that the most solid foundations of religion are 'faith' and 'divine revelation'. But Hume's own view of his position is not the only, nor even the main, evidence for the sceptical nature of the conclusions to which his theories necessarily lead. On that scepticism, as we have been informed with sufficient iteration, is founded the whole imposing structure of modern German philosophy; and modern German philosophy, whatever be its value, is not a phenomenon which easily escapes notice. If it gives little light it is not because it is hidden under a bushel. In all probability, however, its very magnitude has prevented it from materially influencing the course of scientific philosophy in this country; and I believe I may almost say from permanently influencing scientific philosophy even in Germany. A man may be forgiven if, before seriously attempting to master so huge a mass of metaphysics, composed of several inconsistent systems, difficult of comprehension from their essential natures, still more difficult from the extraordinary jargon under which the ingenuity of man has concealed their import—he may be forgiven, I say, if he pauses and considers whether the time may not be better spent in reading something he is more likely to understand. It is, however, unfortunate that this pardonable, and even laudable, caution should have prevented so many people from trying to comprehend the exact difficulty which Kant and Kant's successors saw in the empiricism of Hume, and the extremely ingenious method which they adopted in order to avoid it; for when these are understood, it becomes at once plain that the difficulty is a real one, and that the solution offered of it, at any rate, deserves consideration.

120. The whole value of the transcendental philosophy, so far as the questions raised in this essay are concerned, must depend on its being able to show that the trustworthiness of these far-reaching scientific postulates is involved in those simple experiences which everybody must allow to be valid. If it cannot prove this, it may still be a valuable contribution to a possible philosophy ; it may still show by its searching analysis all that is implied in the existence of Nature, as we ordinarily understand Nature, and of the sciences of Nature as we are taught to accept them ; but more than this it cannot do : it cannot show either that such a nature exists, or that our accounts of it are accurate ; it cannot, in other words, supply us with a philosophy adequate to our necessities.

121. So long as the transcendentalist refuses to move—so long as he merely declines to abstract the relations by which an object is already constituted,—he stands, perhaps, on firm ground ; but directly he tries to oblige us to think a thing under new relations, his method becomes either ineffective or self-destructive. If, on the one hand, we *can* think the object *not* under these new relations, there is nothing in the method to compel us to do so ; for the method consists in showing that without this new relation the object would not exist for us as thinking beings. If, on the other hand, we *cannot* think it except under these new relations, then, either we were not thinking it before or the relations are not new ; and in either case there is no inferential movement of thought from the known to the unknown.

From these reflections it would appear that the transcendentalist must either give up the seeming fact on which his system depends, or explain away a seeming fact which is inconsistent with it. The first fact is, that a given relation is necessary to constitute a knowledge of an object ; the second fact is, that a great many intelligent beings, and the transcendentalist himself, during the earlier part of his life, among the number, appear able to know it out of this relation.

122. The transcendentalist, then, would seem peculiarly bound to admit what no philosopher, perhaps, would be disposed to deny, that thought which is not known as thought cannot properly be said to exist at all. He is therefore reduced to one of two alternatives. Either he must maintain that it is an error of memory and

observation to suppose that every intelligence does not at all times think objects under their necessary relations, or else he must hold that a necessary relation is, *not* a relation that is actually required to constitute an object for a thinking being, but is only one which, upon due reflection, a thinking being is unable to make abstraction of.

The first of these alternatives is somewhat too violent a contradiction of that experience which it is the business of transcendentalism to justify to be seriously maintained by transcendentalists. Accordingly we find them admitting the fact that necessary relations are not always thought as qualifying the object they are supposed to constitute; in other words, accepting the second of the alternatives mentioned above, but at the same time declining any responsibility concerning a circumstance which, according to them, has to do only with the *history of the individual*.

123. The net result of this discussion appears, then, to be that, according to transcendentalism, relations are involved in experience in at least two ways, the difference between which, though it is never recognised by that philosophy, is exceedingly important. According to the first way, an explicit consciousness of the relation in question is a necessary element in every possible experience; without it the experience would be 'nothing to us as thinking beings,' and by it, therefore, the experience may very fairly be said 'to be constituted'. But the number of relations, necessary in this sense, cannot be large, even according to the transcendentalists themselves; nor can the necessity ever be established by argument, since the mere fact that somebody, who knows the meaning of the words he uses, disputes it, proves that it does not exist. If a man does not find that a particular relation, about which there is a question, is involved in his experience, an argument founded on the circumstance that no experience is possible which is not in fact constituted by an explicit consciousness of such a relation, is not likely to convince him that it is there. The mere consideration that proof is required makes proof impossible.

The second way in which a transcendentalist regards relations as involved in experience differs from that just discussed in several important particulars; for whereas in *that* the explicit consciousness of the relation was required to constitute the object, in *this* all that is required is that the object must be *capable* of being thought under the relation. It is plainly incorrect to describe the relation in this

last case as 'constituting the object'; it cannot even be said that the capability of being thought under the relation necessarily constitutes it; for, according to the transcendentalist, 'esse' is equivalent to 'intelligi'—that is, an object *is*, as it is apprehended by a thinking being, and since a thinking being can, as is admitted, apprehend it without in all cases perceiving the capability, this cannot be required to render the object real. As far then as this second class of relations is concerned, the transcendentalist's argument seems involved in something like fatal inconsistency. Because he finds himself, in bringing an object into 'clear consciousness,' unable to make abstraction of a certain relation, he elevates this incapacity into a universal and necessary characteristic of objects; while at the same time admitting that other intelligences and his own intelligence at other times have actually had objects presented to them without this characteristic.

124. By a dialectical process, probably familiar to the reader, we may with much plausibility reduce what we perceive in an object to a collection of related attributes, not one of which is the object itself, but all of which are the changing attributes or accidents of the object. But if this process be legitimate, the 'substratum' of these accidents is either never perceived at all, or, at all events, is only known as a relation. In neither case can it be the permanent of which Kant speaks, since in the first case it is not an object of immediate perception; in the second it can hardly be regarded as an object at all. 'But (it may perhaps be replied) by a remarkable coincidence, science has established by a wide induction the very truth which Kant attempts to prove *a priori*. When men of science tell us that matter is indestructible, it is to be presumed that they attach some meaning to the phrase, and are referring neither to a metaphysical substance nor to an evanescent appearance. When Kant uses the same phrase, it may be supposed that he refers to the same object.' For my own part, I confess to a rooted distrust of these remarkable coincidences between the results of scientific experiment and *a priori* speculation; nor does a closer examination of this particular case tend to allay the feeling. It is true, no doubt, that science asserts matter to be indestructible; but what is the exact meaning of the phrase, and what is its evidence? Can we perceive any thread of identity running through all the various changes which (what we describe as) one substance may undergo?

To a certain extent science assures us that we can. There are two, though, so far as I know, only two attributes of matter, namely, its relation to a moving force and its power of attracting and being attracted by other matter, which never alter; or, to put it more strictly, if we take a certain 'area of observation' (say a closed vessel) out of which matter cannot pass and into which it cannot enter, then, whatever changes occur within this, the matter there, whether always the same or not, never varies in respect of these two properties.

But it has to be observed, that though we can directly perceive both velocity and weight, the fact that there are unchanging relations between a given portion of matter and a given force, or between two portions of given matter, can only be established by an elaborate process of inference involving a large number of assumptions. It might, therefore, be plausibly contended that though *they* are perceived, their *permanence* is not, so that they cannot properly be said to form any permanent element in perception. Passing over this possible objection, however, and, granting for the sake of argument, that we directly perceive the permanence of these two properties of matter, it is still clear that since these are the only two properties of which we can say as much, either they must constitute matter, or matter, in so far as it is permanent, cannot be an object of perception. The first alternation is inadmissible, because these properties are merely relations between certain portions of matter and something else. The second would seem to be inconsistent with the Kantian proof.

The reader will understand that I am not here contending that Kant's conclusion is inconsistent with science, or that the scientific inference is wrong, either in its method or its result. My point is rather this: Though Kant does not, of course, conclude to the necessary permanence of matter merely from its permanence in perception, nevertheless its permanence in perception would seem to be involved in his proof. Now I assert that what we perceive, *in so far as it is perceived*, is either not matter or is not permanent; and I maintain that an examination of that part of the ordinary scientific or empirical proof which bears on the question really confirms this view.

It may perhaps be thought (and some of Kant's expressions countenance the view) that he means to say no more than that we perceive the permanent substance by means of certain of its accidents. But this seems to raise new difficulties. First, how is the

phenomenal substance thus mediately known, to be distinguished from the *noumenal* substance which, if it be known at all, is known precisely in the same way? Why should we suppose it to be in time or space? Why should we suppose it to be a quantity? And how, finally, can we say, with any meaning, that such a substance is phenomenal at all? To put the matter in one sentence—when Kant says that "all determination in regard to time presupposes the existence of something permanent in perception," if his assertion is to be taken literally, it is in contradiction with experience, for there is nothing permanent in perception, unless we choose to describe the relations of matter to force and other gravitating matter in that way: if, on the other hand, he means that what we perceive *indicates* the existence of something permanent, he has first got to prove the fact, and has then got to show that the permanent whose reality is thus established is identical with the external world of science and common-sense; and lastly, to point out how we can be said to be "immediately conscious" of that which we only know through, and by means of, its attributes. Such, then, are the chief objections which, as I think, apply with equal force to the "First Analogy" and the "Refutation".

125. Event A and moment *a* are followed by event B and moment *b*. This happens once actually and, if you please, necessarily; but it never happens again. The events vanish into the past as certainly as the moments in which they occur, and they can as little be recalled. But all this has nothing to do with causation. What the principle of causation, strictly speaking, asserts is, not that if event A recurs it will be followed by event B, for event A cannot possibly recur; but that if an event similar to A recurs, an event similar to B will certainly follow: and how this second hypothetical assertion is involved in the categorical assertion of a simple historical succession between actual concrete events and moments, altogether passes my understanding.

The transcendental view appears to be, that because there is a necessary order between successive moments, therefore there must be a necessary order between successive events; and this desired necessity can only be found in the principle of causation. But if there was no causality at all, the order of events would still be just as much or just as little necessary as the order of moments. An event is what it is because it happens when it does. A

moment is what it is because it occurs when it does. Neither the one nor the other could occur at any other time, simply because by so doing it would cease to be itself. It is true of course (and this is no doubt the cause of all the confusion) that we habitually talk of the *same* event as occurring at *different* times, while we make no such assertion respecting particular moments. But this is simply because the whole essence of a moment consists in the time at which it occurs, whereas it is commonly the case that this is the least interesting of all the relations which constitute an event, and the one of which it is therefore most often convenient to make abstraction. Nor is it to the purpose to say that events cannot be dated in relation to time, but only in relation to other events; because in every sense in which this can be asserted of particular events, it can likewise be asserted of particular moments. If, therefore, this fact necessitates causation in the one case (which, however, I deny), it must necessitate it also in the other—which is absurd.

Other objections besides these might no doubt be taken against particular points in the transcendental proof, but the best refutation of it is to be found in its own version of its general nature and object. That object is simply to show that a clear idea of succession is impossible, except to those who first regard phenomena as necessarily connected according to the principle of causation; which, again, is as much as to say that by far the larger part of mankind have no clear idea of succession at all. And when I say the larger part of mankind, it must be remembered that in that majority are included not only all those who do not believe in the universality of causation, but also almost all those who do; since I will make bold to say that the greater number of these, however much they turn their minds to the nature of succession in time, do not find involved therein the principle of cause and effect. This necessity, then, under which the transcendentalists labour, if it is to be of 'objective' application, and is to have any philosophic value at all, requires us to believe that mankind has been, and is, suffering under a very singular illusion respecting the clearness of its own ideas, on a point which is commonly thought to be so simple as to defy further analysis. This by itself is sufficiently hard to believe; and the difficulty does not diminish when we come to examine the matter more closely. For what does the supposed necessity oblige us to hold? That when we perceive two events in succession, the first is the cause of the second? Not at all. But that when we perceive two events in succession, there exists *somewhere* a cause for the

second—a cause possibly (indeed, probably) of which we are, and shall remain for ever, ignorant! So that what the transcendental doctrine comes to is this, that we can have, and do have, an idea of succession which is not causal, but that we cannot have such idea, at least in 'clear consciousness,' which does not involve the idea of some *other* succession which is indeed causal, but one element of which is, or may be, quite unknown to us!

On the whole, then, I cannot agree with Herr Kuno Fischer that Kant's "giant strength" has been very happily employed in this attempt to place the doctrine of causation beyond the reach of sceptical attack; on the contrary, it seems to me that all the difficulties inherent in the transcendental method, and all the confusion and obscurity which are so often to be met with in Kant's use of that method, are strikingly exhibited in his treatment of this central and important principle. It is commonly asserted that it was Hume's theory (that our expectation or belief in the uniformity of Nature is the result of habit) which suggested to Kant the necessity of finding some more solid basis on which to rest our systematic knowledge of phenomena. If so, it is unfortunate that it should be precisely at this point that the ingenious and important method of proof, which it is his chief glory to have invented, most obviously and completely breaks down.

I have only to point out, in conclusion, that had the transcendental demonstration been as sound in all its parts as Herr Kuno Fischer and Professor Caird suppose it to be, the thing proved is not sufficient by itself to serve as a basis for scientific induction.

All that Kant can be said, on the most favourable view of his reasoning, to have established is that, to use his own words, "the phenomena in the past determine all the phenomena in succeeding time"; or, as Professor Caird phrases it, "the subsequent state of the world is the effect of the previous state".

But something more than a fixed relation between the totality of phenomena at one instant and the totality of phenomena at the next instant, is required before we can, in the scientific sense of the expression, assert that these are 'laws of Nature'. A law of Nature refers to a fixed relation, not between the totality of phenomena, but between extremely small portions of that totality; and it asserts a fixed connection, not between individual concrete phenomena, but between classes of phenomena. Now by no known process of logic can we extract from the general proposition that 'the subse-

quent state of the world is the effect of the previous state,' any evidence that such laws as these exist at all; and what is more, this general proposition might be perfectly true, and yet the course of Nature might be, to all intents and purposes, absolutely irregular, even to an intelligence which, very unlike our own, was able to grasp phenomena in their totality at any given moment. For 'regularity' is an expression absolutely inapplicable to series, in which there is no kind of repetition; and we have no reason for supposing—from the point of view of science we have every reason for *not* supposing—that the world will ever return exactly to the same state in which it was at some previous moment. If, therefore, we have grounds for believing that the states of the universe at two successive instants are connected only as wholes, and not necessarily by means of independent causal links between their separate parts, then of such a universe we could say, perhaps, that its course through time was *determined*, but we could not say that it was *regular*, nor would it be possible for a mind, however gifted, to infer, by any known process of reasoning, its future from its past.

If I may judge from a phrase of Professor Caird's, he holds a different opinion, for he appears to think that the existence of causal links between individual phenomena follows necessarily from the fact of a causal connection between the totality of phenomena at different times. "To find," he says, "the special threads of causality which connect the sequent states of objects is of course a matter of careful observation and experiment. *But in asserting sequence we have already by implication asserted that the threads are there.*" I do not know whether the implication here spoken of is transcendental. Its nature is developed neither by Kant nor by himself, and my own unassisted efforts to find it in the "clear consciousness" of sequence have, as perhaps was natural, met with no success. But if it is not transcendental, certainly it is not empirical. I showed before, that, admitting the existence of these causal threads, experience alone could never show their precise nature; still less, if we do not admit their existence, can experience alone prove it. It is not, however, necessary to waste the reader's time in establishing this point. The transcendentalist would be ready to admit it without demonstration, since, if he allowed that experience was a sufficient ground of belief in this case, he would find it hard to deny its sufficiency in other cases; while, on the empiricist's view of the question I have sufficiently dwelt in the earlier chapters of this essay.

Three Arguments from Popular Philosophy.

126. To sum up. The minor premise of the argument from general consent (and the same is true of all arguments from authority) cannot be proved without assuming many, if not all, of those scientific postulates which it is the business of that argument to prove. The major premise, on the other hand, of the argument cannot, any more than the major premise of any other argument from authority, be regarded as an ultimate belief; and (the case of experts being excluded) if we ask what proof can be given of it, we are reduced either to the 'argument from success in practice,' or to the 'argument from common-sense'.

I turn, therefore, to the first of these—about which a very few words will suffice.

The 'Argument from success in practice' is nothing more than an appeal from the scepticism of theory to the faith which is born of experience. 'You assert,' it says, 'that no logical proof of ordinary opinions can be given, and that neither common-sense nor universal consent can supply a basis of philosophical certitude. Grant that this is so; it by no means necessarily follows that men ought to give up on a point of theory, or through some over-subtlety of speculation, beliefs which work admirably in practice. However ingenious may be your doubts, after all experience proves that they have no substantial foundation; nor is it any use to say that the uniformity of Nature, or any other great principle, is not proved to be true, when every hour of our lives shows that at all events it is true enough for all practical purposes.'

That men ought not to give up on speculative grounds the belief in 'the uniformity of Nature, or any other great principle,' I hold, as the reader will see if his patience lasts till the end of the volume, with as much persistence as any man. But I must altogether take exception to the statement which is the central point of the argument just stated, namely, that the fact that these principles work in practice is any ground for believing them to be even approximately true. This is in reality an example of the illegitimate extension of a perfectly legitimate argument. *Given* certain laws of Nature—*given* that there is a fixed plan according to which phenomena occur, and which we are capable of discovering, it is undoubtedly true that the fact that a certain theory 'works in practice,' i.e., agrees, so far as our experience goes, with the real

order of things, is a ground for putting confidence in it for the future; how much confidence it is the business of the Inductive Logicians to tell us. But the earlier chapters of this essay have been written in vain if the reader requires to be told that experience is altogether incapable of establishing the truth—even the probable truth—of these initial assumptions. It cannot prove the wisdom of a provisional belief in them, simply because it can prove nothing about them at all. Its oracles are not so much ambiguous in their import, as altogether dumb; and certainly give no reasonable encouragement to the compromise (which, however, I myself believe in) between theoretical scepticism and practical faith.

127. Now when, in ordinary discussion, a belief is defended on the ground that it is in accordance with common-sense, what is frequently intended to be conveyed by the argument I imagine to be something of this sort: 'The belief in question may not be exactly defensible on rational grounds, we admit that we cannot satisfactorily support it by reasoning—nevertheless practically all men *must* assent to it, and all men *do* assent to it, and there is nothing more to be said about the matter'. I have no complaint whatever to make against any one who takes up this position, provided it be understood exactly what the position is. It is not an *argument* in favour of a belief; it is a confession that no such argument can be found, and an assertion that we must do without one. It is not a philosophy, either of common-sense or anything else; it is rather a negation of all philosophy. And therefore it is that, directly any attempt is made to raise what is a mere dogmatic assertion to the dignity of a philosophical reason, it is found necessary to buttress it up by various supplementary principles, which, as they are not always clearly distinguished from the original ground on which assent was demanded, are apt to introduce the strangest confusion into every part of the subject. This necessity of adding support to common-sense pure and simple, as I have just described it, shows itself in various ways in ordinary quasi-philosophical discussion. Ask any man why he believes the dictates of common-sense, and he is very likely to 'say that he does so because everybody else does so (which is the 'argument from general consent'), or that he does so because he and mankind in general find them answer—which is the 'argument from success in practice'. Though if, on some other occasion, he is asked why he puts confidence in these two

latter arguments, it must be admitted that he is very likely to say that he does so because they are recommended to him by 'his common-sense'.

But there is another argument sometimes used to eke out the bare assertion that proof must be foregone, which is so important that it may be doubted whether it does not better deserve the title of *the* argument from common-sense ; more especially as it really is an argument (though not a very good one) which the other is not. It may be stated somewhat in this way :—' Human intelligence, like any other machine, may work rightly or wrongly. It may do its proper and normal work, or it may do something altogether different and abnormal. In the former case we shall obtain from it truth ; in the latter, error. In order, therefore, to get at the truth, we have only to observe what an intelligence working normally turns out, in other words, what common-sense naturally believes, and to put our faith in that.'

But then the question arises—What is an intelligence 'working normally'?

It is not enough to say that it is an intelligence working in such a way as to perceive the truth, for, when asked what was the truth, we could merely reply that it was that which an intelligence working normally perceived to be true, and when asked what an intelligence working normally was, that it was an intelligence which perceived the truth—a pair of statements which, taken by themselves, would not bring us much nearer to the discovery of a philosophy. Nor is it of any use to say that a normal intelligence is one which obeys natural laws ;—not only because, if science is to be believed, every intelligence, sane or insane, does that, but because we should then be in the singular position of maintaining that we know what are natural laws by means of an intelligence in whose judgment we had confidence because it was governed by natural law. Nor yet is it possible to say that the question of what is normal and therefore (indirectly) of what is true, can be decided by majorities however large : to do so would be to revert to the 'argument from general consent' which has been already disposed of. If anything is to be made of this principle, it can only be by supplementing it in some form or other by the idea of *design*. We must either presuppose a Creator who constructs our intelligences in such a manner that on the whole what they incline to believe is true, or else we must adopt the modern substitute for a Creator, and suppose that there is some process by which right-thinking intelligences tend to multiply and

wrong-thinking ones to die out. On either of these suppositions, it is undoubtedly the fact that there is a considerable probability that what all men practically agree in believing is worthy of belief: but then, not to speak of the difficulty already dwelt on of showing, without a *petitio principii*, what it is that all men agree in believing,—the question still remains, what reason have we for thinking that either of these suppositions is true? Nobody has as yet, so far as I know, maintained that the theory of natural selection is self-evident; and though the same cannot absolutely be said of Theism, yet the common opinion seems to be that it is desirable to have, if possible, some kind of proof for the existence of a God. In any case, as mankind in general are not more disposed to believe the fundamental principle of Theology than they are to believe the fundamental principles of Science, it is absurd without further evidence to adduce the first in support of the second.

Design, therefore, whether Theistic or atheistic, whether depending on an intelligent Creator or the blind operation of natural selection, requires proof. And what kind of proof is possible? I have never heard of any, nor can I imagine any, which does not depend on those very principles for which proof is required; and in support of which the hypothesis of a normal intelligence contrived by design was adduced. The circle, therefore, in which the argument turns is evident. We are required to believe in certain propositions because they are believed in by a normal intelligence: we are required to believe in the existence and testimony of a normal intelligence because intelligence is the product of design or of something equivalent to design: and we are required to believe in design because of certain facts which can only be established if the propositions we originally set out to prove are true!

Of the two meanings then, which, so far as I can judge, may be attributed to the 'argument from common sense' as it is ordinarily used, the first is not so much an answer to scepticism as an admission that no answer is forthcoming; while the second ceases to be effective as soon as the various propositions which compose it are brought into clear relief,—it is plausible only so long as it is confused.

The Authority of Consciousness and of Original Beliefs.

128. To my thinking, this idea of a faculty within the mind, whether called conscience, consciousness, or common sense, induc-

ing the mind by the mere weight of its authority to accept certain propositions, is one of the most singular fictions which has ever appeared, even in metaphysics. It is a fiction, moreover, which is particularly unfortunate from the fact, that, in all cases where it is not superfluous, it is misleading. In the case of propositions which have other evidence, it is clearly superfluous ; in the case of propositions having no other evidence but which are certain in themselves, it is also superfluous ; while in the case of propositions which have neither external evidence nor internal certainty, it is misleading, since it can, as I shall presently show, only simulate the appearance of an independent and original ground of belief.

I may be told, indeed, that the consciousness which Sir William Hamilton and many other philosophers set up as the final arbiter of truth is no separate faculty within the mind, but is co-extensive with the mind itself. If this were so, their theory might be much more tenable *psychologically*, but it would be much less tenable *philosophically* than it was before. They would be guiltless of founding their philosophy on an imaginary faculty ; but they would, on the other hand, be deprived of any single and supreme authority on which to found it at all. It may be readily admitted that, without doing violence to established usage, consciousness might be used as a general name for mental phenomena, or our apprehension of them ;—but in that case it ought not to be regarded, any more than other general names, as denoting anything separate and distinct from the several particulars it describes. Though, doubtless, the ‘I’ in relation to which all mental phenomena are apprehended is a unity, yet every such phenomenon is distinct from every other, and consciousness, if it be used as a general term for describing these phenomena, is a unity only in the sense of being one name which belongs to a great many things, and in this sense it is evident that it cannot be regarded as a single authority.

This is equally true if consciousness is taken to be, as it might perhaps be maintained that Sir William Hamilton in this connection intends it to be, a general name for our acts of intuitive judgment. This use of the word certainly excludes the notion of consciousness being set up as a kind of separate faculty, but then it also excludes the idea of consciousness testifying to anything. Either there is *no* criterion for the truth of intuitive judgments, in which case consciousness cannot be that criterion ; or there *is* a criterion, in which case it must be something more than a general name by which those judgments are described. In the first case, much of

Sir William Hamilton's language must be regarded as metaphorical, and some of it as erroneous ; in the second case, it would seem that he stands committed to a doctrine (which, I believe, he really held), according to which consciousness is regarded as a kind of judge whose veracity and whose competence are equally above suspicion.

Now, it is evident that a theory of this sort, by which consciousness is raised to a position in philosophy similar to that which conscience occupies in popular morality—*this* telling us what we ought to *do*, just as *that* tells us what we ought to *believe*—cannot be proclaimed without immediately provoking three questions: First, Does such an authority exist? Second, Why ought we to believe it? Third, What does it tell us to believe? I waive the first of these questions, though it raises points of great interest about which much might be said, and I pass on to the second, Why ought we to believe it? Sir William Hamilton is in no way embarrassed for an answer,—indeed, in the "Dissertation" he gives no less than five.

129. These proofs, it will be recollected, are proofs at the second remove of judgments which, though they were originally pronounced to "carry their own evidence" and to "necessitate their own admission," are many of them, in reality, open to doubt. We are first called upon to believe these truths on the authority of consciousness ; and we are now called upon to believe the authority of consciousness on the strength of the five somewhat inadequate reasons.

But now the question arises, By what means are we to discover the judgments to which consciousness certifies? Instead, however, of answering this question, Sir William Hamilton answers quite another one, namely, What are the marks by which we may discover those judgments which are original? Whence it would appear, that he considers that all deliverances of consciousness are original judgments, and that all original judgments are deliverances of consciousness. Before examining what grounds he may have for such an opinion, I must say one word on the meaning of the word 'original,' round which much confusion has arisen in connection with this subject in the writings of more than one author.

The word 'original,' when applied to a belief or judgment, may be legitimately used in two senses, which are perfectly distinct, though they are not always distinguished. It may mean *either* that which stands first in order of logic, that which is a premise, but not

a conclusion, *or* that which stands first in order of time, that which (to put it more strictly) in the chain of phenomena governed by psychological laws, may be a cause, but is not a product. When it is said that all proof must finally rest on original propositions which are not themselves proved, the term is used in its first meaning: when it is said that "necessity is a criterion which will enable us to distinguish an original datum of intelligence from a result of generalisation and custom," it is used in its second meaning. Mr. Mill, as will appear directly, habitually uses it in the second sense, and seemed to think that Hamilton did the same. In this, I think, he was mistaken. Hamilton used it, I believe, in both senses (though without distinguishing between them), and, on the whole, more frequently in the first sense than in the second.

On what grounds then (to return to our argument) does Sir William Hamilton identify our original judgments (according to either definition of the word 'original') with the deliverances of consciousness? He gives no reason himself; and as I know nothing but what can be gathered from his writings respecting the nature of that internal authority, not even the fact of its existence, I am unable to supply any. But this omission, it is evident, destroys the value of the whole argument from common-sense. Grant that consciousness is shown to be trustworthy by the five arguments, and that original judgments may be recognised by the four marks enumerated by Sir William Hamilton, how are we advanced, unless we know that the original judgments are identical with those which are certified by consciousness?

130. Finally, what plausibility remains in the reasons by which Hamilton tries to persuade us that consciousness is veracious? If consciousness be an authority implanted in us for our guidance, there may be some reason (on the Theistic hypothesis of the universe) for supposing that it is inconsistent with the Divine veracity that it should be otherwise than trustworthy. But what shadow of reason can there be for making the Deity specially responsible for certain beliefs solely because they do not happen to be produced by known psychological laws, or because no other reason for accepting them happens to be forthcoming? And why are such laws to be presumed true till they are proved to be false, like the utterances of a respectable witness who has never been detected in an untruth? These reasons are bad if the common-sense philosophy is founded upon

the existence of a single subjective authority; but if it is not so founded, they cease, I think, even to be specious.

131. I believe, then, that in his exposition of the common-sense philosophy there is an ambiguity; but I further hold that this ambiguity is essential to the plausibility of that celebrated system, otherwise I should not have so long detained the reader over the matter. The problem that Sir William Hamilton desired to solve was a perfectly legitimate one. He found certain beliefs, those respecting the existence of our actual conscious state, which no sceptic had questioned. He found others whose truth it was scarcely less desirable to raise beyond suspicion, which scepticism had made, at least theoretically, doubtful. What was to be done? It seemed as impossible to find anything like a reason for these convictions as it was to give them up because no reason was forthcoming. The Kantian device for getting over the difficulty never seems to have been understood by him; merely to say that the beliefs were innate was out of fashion since Locke; nothing therefore was left but the scheme which I have just been considering. Ask a common-sense philosopher of the Hamiltonian school *what* he believes, and he tells you that he believes all the original convictions of mankind; ask him *why* he believes them, and he tells you that it is because they are deliverances of consciousness. It is because some of the original convictions of mankind are not, considered by themselves, beyond the reach of scepticism, that the authority of consciousness is invoked in their behalf; it is because no mere reflection on the nature of that imaginary faculty can make known what are its deliverances, that it is necessary to take for granted that they are identical with the original convictions of mankind. Some of the confusion and ambiguity incident to Hamilton's exposition of the theory are therefore really necessary to its plausibility. If you improve his statement, you destroy his system—always supposing that his system is as I have represented it. On this point, however, I admit I may have been mistaken. Mr. Mill's version of it, which is very different, may be, after all, the correct one; and to this, which, strange to say, he not only attributed to Reid, to Hamilton, and to the philosophic world at large, but also fully accepted himself, I now address myself.

132. There seem to be three fatal objections to a philosophy

founded upon the authority of original beliefs. In the first place, there is no ground for supposing that original beliefs are particularly fitted to serve as the foundation of a creed; in the second place, there is no ground for supposing that acquired beliefs are particularly unsuited for such a purpose; and, in the third place, it is impossible to determine what beliefs are original and what are acquired without assuming the truth of many propositions whose only evidence can on this theory be that they *are* original.

I shall, perhaps, be told that though Mr. Mill attaches in theory this absolute certitude to our original beliefs, yet that in practice he supposed himself to require as a foundation for his inferred beliefs no immediate knowledge but that which the mind has of its own states. I admit the fact, but I deny that it is any defence. It relieves him, no doubt, from the charge of practically committing the logical error pointed out in my third objection, but at the cost of falling into one of greater magnitude still. He cannot be accused of founding his creed on judgments proved by the psychological method to be original, and therefore true, simply because the psychological method, in his opinion, showed that no judgments *are* original. His philosophy of ultimate beliefs, therefore, was not only unsound, but if sound it would have been useless. My complaint against him, however, does not end there. That the philosophy which he speculatively maintained should be incapable of solving the problems which most press for solution is bad, but it is worse that the philosophy to which he adhered in practice should ignore the very existence of these problems. And here I think Sir William Hamilton is greatly his superior. The common-sense philosophy, whatever be its shortcomings, and they are many, was at all events constructed with a view to our actual necessities. It recognised, in a more or less confused manner, the fact that most of the judgments whose truth we habitually assume are not beyond the reach of scepticism; that some sort of proof for them is therefore required, and that none of the usual proofs from experience are sound. The hypothesis of a consciousness whose veracity is in some way involved in that of the Deity, and which shall give its testimony in their favour, is not one perhaps very well calculated to stand hostile criticism, but at any rate, if true, it would go some way towards solving the difficulty. To the psychological school, on the other hand, it hardly seems to have occurred that there was a difficulty to be solved. Their psychology so overshadows their philosophy that when they have once discovered to their satisfaction how a thing

came to be believed, they seem comparatively indifferent as to the more important questions of how far, and why, it ought to be believed. If only they can apply the 'approved methods of physical science' to the discovery of the genesis of mental phenomena, they take a very optimistic view of the difficulties which attach to the proof of the principles on which the legitimate application of the 'approved methods' must finally depend. One example of their easy acceptance of insufficient proof I have already discussed when I was dealing with the law of Universal Causation. A still more remarkable case of ignoring difficulties remains to be treated of in the criticism which follows on the psychological theory of the external world.

Psychological Idealism.

133. The thesis I wish to maintain is a very simple one, and it is this: Received science cannot be true if the idealistic account of the universe be accurate: nor is the discrepancy between the two merely verbal; it is fundamental and essential, and can be bridged over by no mere artifices of terminology. That there is a verbal discrepancy requires, I imagine, no proof. Natural science (of which alone I am here speaking) assumes the independent existence of matter in all its utterances. A theory which denies this independent existence is undoubtedly, therefore, in *primâ facie* contradiction with Natural Science; and the question we have to determine is, whether under this superficial contradiction there is or is not a real and substantial harmony. Now we must beware of confounding with this question another with which it is liable to be mixed up—namely, whether Idealism is or is not consistent with our ordinary experience. If we admit the legitimacy of the ideal psychology—if we admit that objects as perceived may be resolved into ideas or sensations, there is no doubt that this last question must be answered in the affirmative. That is, we may suppose Idealism to be true without being obliged to suppose that we should either see, hear, or feel under any circumstances what we should not see, hear, or feel if independent matter existed.

Supposing, therefore, that Science consisted in nothing more than a series of propositions asserting what, under given conditions, our experience would be, there might be no fundamental discord between it and Idealism. If, for example, as Berkeley declares, 'the question whether the earth moves or no, amounts in reality

to no more than this, to wit, "whether we have reason to conclude from what has been observed by astronomers, that if we were placed in such and such a position and distance both from the earth and sun we should perceive the former to move," etc., no doubt astronomy and the theory under discussion might easily be harmonised. But in truth Science does much more than this. It tells us not only what we should perceive if we were rightly circumstanced to perceive it, but also how it comes about that we should perceive that particular thing and no other, and what it is that would happen or has happened whether we or anybody else were there to perceive it or not. It tells us that perceiving organisms were evolved from a world which was itself neither perceiving nor perceived, and that processes take place within that world which, like the elements of which it is composed, are too subtle to be apprehended by sense, or even, in some cases, to be represented in imagination. In short, it asserts the existence of a vast machinery, composed of that 'inert, senseless, extended, solid, figured, movable substance existing without the mind,' which Berkeley declares to be a contradiction in terms, and which causes, among an infinite number of other effects, our perception of itself.

If this be not in direct irreconcilable contradiction with a theory which asserts the existence of no causes besides spirits and no effects besides ideas, then such a thing as contradiction does not exist in the world. But if (which I hardly think) any reader is still unconvinced on this point, let him try to state the doctrine of Evolution in ideal language—without of course postulating the Deity, whom Berkeley would have introduced to save the situation. The attempt will, I think, leave no doubt on his mind that Mr. Spencer is right when he declares that 'if Idealism be true, Evolution' (for *Evolution* we may read *Science*) 'is a dream'.

Perhaps it will be objected that in these remarks I have only dealt with Psychological Idealism in the form in which Berkeley left it.

134. Let us turn then to Mr. Mill, who is above all things the philosopher of men of science, and observe whether his statement of the case is more agreeable to ordinary science than that of his theological predecessor. At first sight there seems a promise of reconciliation in his language, for, verbally at least, he recognises the existence of a permanent something which may serve as a substitute for matter. The external world which is dealt with by natural science consisted, according to Berkeley, in ideas. Accord-

ing to Mr. Mill it consists of sensations and permanent possibilities of sensation. An object when it is perceived may be resolved into sensations *plus* permanent possibilities of sensation; an object when it is *not* perceived may be resolved into permanent possibilities of sensation alone.

What sensations mean is tolerably plain, whether the partial resolution of a perceived object into them be legitimate or not. But what are possibilities of sensation? And in what sense can they be permanent? Mr. Mill habitually speaks of them as if they could exist in the same sense in which positive entities exist. But this surely is an entire delusion. A possibility *is* nothing till it becomes an actuality. It *will* be something or it *may* be something at some future time, but, until then, it is nothing. You may verbally indeed give a kind of present being to a future sensation by saying that the possibility of it exists now. But there is no reality in nature corresponding to this phrase. A sensation must either be or not be; and if it is only a possibility, it certainly is *not*. A universe therefore which consists of such possibilities is a universe which for the present does not exist at all; it is a verbal fiction, and cannot form the subject-matter of any science deserving the name.

135. So we come to this final result: that if we take a plain scientific proposition asserting the action of external bodies, or what are commonly thought to be such, on mind, we can, in the first place, only express it in terms of possibilities of sensation by attributing to these a realistic signification; and, in the second place, if, as we have a perfect right to do, we conceive such possibilities of sensation all converted into actualities, we cannot express the proposition in terms of the psychological theory at all.

'But,' the reader may, perhaps, be inclined to say, 'these difficulties are just what might have been expected. The various renderings of the original proposition are all absurd, because that proposition was an absurd one to start with.' Extremely absurd I admit, if Idealism be true; but not at all absurd if Science be so. And that is just the point. Science cannot get on for an hour unless it be allowed to employ propositions of this kind, which assert the action of some x upon the mind. Idealism, in the hands of a true follower of Berkeley, would either deny the existence of the x , or would identify it with the Divine Spirit; and in both cases would make received Science impossible. Natural Realism

again would identify the x both with the immediate object of perception and with independent and extended matter, and, like all other realistic systems, would present, at any rate, an appearance of harmony with Scientific doctrine. But when we ask the Psychological school how they deal with the x , we can extract from their teaching nothing but confusion. They give us to understand that they are idealists, that in their opinion the world consists of nothing besides sensations and possibilities of sensation; and we readily accept this as the true idealistic identification of the *real* with the *felt*. But on asking how this identification is consistent with a science which nominally at least postulates a world independent of mind, we find that they are forced to convert their possibilities into objects which exist without being perceived, which can act as causes, which can suffer change, and which are therefore as little ideal as the most vehement realist need desire.

'But how,' it may be asked, 'if there is this radical discrepancy between Idealism and Science, happens it that so many philosophers have accepted the first, and yet have never cast speculative doubts upon the second? How do you account for the fact that neither Berkeley nor Mill (to go no further) ever detected a difficulty which, if it exists at all, is sufficiently obvious?' One reason of this oversight I take to be that Idealists have occupied themselves more with showing that their particular system was consistent with ordinary experience than that it was consistent with the more remote conclusions of Science. The sort of objection which they chiefly anticipated, and with reason, was that of the persons who thought that a disbelief in matter ought to take the form of running up against posts or tumbling into the water; and so much of this objection depends on a gross misconception, that the grain of truth which lies hid in it is easily overlooked.

I have already pointed out two further reasons which, in the case of Berkeley, go far towards accounting for his insensibility to a difficulty with which he several times formally professes to deal. The first is, that his scientific beliefs were certainly lukewarm, and probably heterodox; the second is, that his theology supplied the basis of a possible, though not of any actual, science of phenomena, by providing a permanent thinking substance in place of the matter which he destroyed. In Mr. Mill's case neither of these reasons holds good. His scientific faith was fervent and orthodox; while it is generally understood that his theological creed, whatever may have been its precise nature, did not at all events include a belief in

an Infinite Mind who should be the immediate cause of all our sensations.

Mr. Mill, however, had sources of error peculiar to himself. As I stated in the last chapter, one of the disturbing elements in his philosophy, which no doubt largely affected his views on this particular subject, was the overpowering interest he took in the *genesis* of a belief to the exclusion of a thorough examination into its *truth*. Thus the main part of the space devoted (in his "Examination of Hamilton") to the Psychological theory of the external world is occupied, not with discussing the general philosophic ground and bearings of Idealism, but in showing how a belief in matter originally came into existence. But, besides this more general cause of error, there was another special to this question which Mr. Mill should not have fallen into, since it is one of a kind he was particularly fond of preaching against—I mean the error of supposing that because there exists in language a name, therefore there must exist in Nature something corresponding to the name. Because it is allowable to speak of a 'permanent possibility,' he permitted himself too easily to think that a world consisting of possibilities of sensation and these alone, could in any real sense be permanent, or, as I should prefer to say, persistent. That this is not so has been sufficiently shown, I hope, in the preceding pages. It, therefore, only remains for those who accept Idealism as the one possible theory of the material world consistent with Psychological analysis, to choose between the results of Internal and those of External observation on the one hand, or on the other boldly to adopt a creed which is avowedly inconsistent with itself.

In the next two chapters I shall examine, so far as it is necessary for my purpose, the philosophy of a thinker, who, though in a popular discourse he is frequently associated with Mr. Mill on the points with which I am concerned, resembles him but little in his teaching.

The Test of Inconceivability.

136. Mr. Spencer seems to be under the singular delusion 'that any one declining to recognise the Universal Postulate can consistently do this only so long as he maintains the attitude to pure and simple negation. The moment he asserts anything—the moment he even gives a reason for his denial, he may be stopped by demanding his warrant. Against every "because," and every "therefore," may be entered a demurrer, until he has said why this

proposition is to be accepted rather than the counter-proposition. So that he cannot even take a step towards justifying his scepticism respecting the Universal Postulate without, in the very act, confessing his acceptance of it.'

The confusion underlying these remarks has already been pointed out by implication; and if I may venture to give an opinion on such a question, it is the fundamental confusion which has vitiated all this portion of Mr. Spencer's speculation. He seems to suppose that the choice lies between founding a creed on the Universal Postulate, and founding it upon nothing at all: and in order to demonstrate the absurdity of the second alternative, he actually puts himself to the trouble of refuting a theory which he calls "Pure Empiricism" which "tacitly assumes that there may be a Philosophy in which nothing is asserted but what is proved". Whether this singular system has any objective existence I do not know: if it has, Mr. Spencer may be allowed the credit of having effectually exposed its absurdity; but I protest against the notion that we must choose between a philosophy of this type, and one ultimately based on the Universal Postulate; nor can I the least imagine the dialectical process by which Mr. Spencer would compel the 'Metaphysicians' (who come in for so many hard sayings at his hands) to regard them as the only possible alternatives.

137. In one of the earlier chapters of his "General Analysis," Mr. Spencer has found it convenient to give us an amended version of one of Berkeley's dialogues. It will not, I hope, be thought disrespectful if, also in the dialogue form, I give my idea of the method in which Mr. Spencer and a 'Metaphysician' would discuss the necessity and validity of the Universal Postulate. We must suppose this imaginary individual to have so far forgotten himself as to make some positive statement—say that a thing must either be or not be. Instantly Mr. Spencer demands his warrant for the assertion, upon which our Metaphysician would probably say:—

Metaphysician. I have no warrant for the assertion, and I wish for none. It expresses a belief for which no proof is forthcoming, and for which none is required.

Mr. Spencer. Still you must say why this proposition is to be accepted rather than the counter-proposition.

Metaphysician. Perhaps, if that is your opinion, you will be good enough to give me your own version of this reason.

Mr. Spencer. Certainly. I believe that a thing must either be or

not be, because this is a proposition of which I cannot conceive the negation.

Metaphysician. Then in your opinion the fact that you cannot conceive the negation of a proposition is in all cases a sufficient logical justification for believing it?

Mr. Spencer. Well, not exactly. It is sufficient only in the case of those propositions "which are not further decomposable".

Metaphysician. Then I understand you to hold that all propositions which are not further decomposable, and whose negations are inconceivable, are true; and that "a thing must either be or not be" is such a proposition.

Mr. Spencer. That is my opinion.

Metaphysician. Without disputing your major premise—which, however, by no means commends itself to my mind—I am curious to know how you arrive at the conclusion that the proposition we are discussing (1) cannot be further decomposed, and (2) has a negation which is inconceivable?

Mr. Spencer. I arrive at the first conclusion by a careful consideration of the proposition itself; I arrive at the second by a process of introspection.

Metaphysician. Speaking for myself, I do not feel more certainty respecting the accuracy with which these operations have been performed, than I did respecting the truth of the original assertion for which you informed me warrant was required; indeed, I do not feel nearly so much. Doubtless, however, as you are so particular on the subject of warrants, you have some warrant for your opinions on these points; could you inform me precisely what it is?

I shall not continue the imaginary dialogue, because it is hard to think of any reply which Mr. Spencer could make to this last demand which would not have about it a slight air of absurdity. If the reader desires to bring the conversation to a proper close, he will have no difficulty in filling in the blank for himself. I have said enough to make it clear why it is that Mr. Spencer's elaborate discussion on the Universal Postulate does not, in my opinion, constitute a valuable addition to Philosophic theory: and it only remains to examine how far his particular system of Realism, which is professedly founded on the Universal Postulate, is tenable if that be discredited.

Mr. Spencer's Proof of Realism.

138. Mr. Spencer imagines that an Idealist sets to work to prove that we know only our own sensations, by showing that,

according to modern physical theories, our sensations are produced in us by the motions of objects in space ; by showing, for example, that sound is subjective, because its objective cause is vibrations, which are something altogether different from the sensations they produce. If any Idealist really argued in this way, his procedure would certainly exhibit what Mr. Spencer calls " a scarcely imaginable blindness to the contradiction between premises and conclusion ". But I never heard of such an individual, and if he exists he certainly is not representative. It is true that many Idealists—for example, Mr. J. S. Mill—have held, in my opinion erroneously, that Idealism was consistent with the usual physical theories respecting the causes of sensation, but they never founded their Idealism on those theories, and whatever be their errors, are certainly not guilty of " unimaginable blindness ".

' The Argument from Priority ' may therefore be dismissed, because, of the two main positions of which it consists, one is not relevant, and the other is not true. It is not relevant to say that the first and natural belief of mankind is realistic ; it is not true to say that the proof of Idealism logically involves Realism.

139. What, then, is ' the one proposition of Realism ' which is represented in vivid terms ? In glancing through Mr. Spencer's defence of Realism, we come across a large number of propositions of a highly abstract character, and all of them equally necessary to his system. He has opinions on the nature of the connection between subject and object—proof of the existence of the object—explanation of the nature of the object—none of which can be omitted without depriving his doctrine of some essential element. Are these the propositions, or any of them, which are represented in vivid terms ? The reader shall judge from one specimen. Here is an extract describing the Real, as it is put before us by Mr. Spencer's Realism :—" These several sets of experiences unite to form a conception of something beyond consciousness which is absolutely independent of consciousness ; which possesses power, if not like that of consciousness, yet equivalent to it ; and which remains fixed in the midst of changing appearances. And this conception, uniting independence, permanence, and force, is the conception we have of matter." If the reader thinks the ideas called up by this sentence are particularly vivid, he must, as Mr. Spencer remarks on another occasion, have " a mental structure of a very peculiar kind ".

The real truth is that, because all idealists and sceptics, in the exposition and defence of their opinions, have indulged in a great deal of abstract Psychology, Mr. Spencer concludes that such speculations are more required by their opinions than they are by the opinions of their opponents. The quantity of such speculation which he has himself found it necessary to give to the world in support of Realism should have made him cautious in his assertions on this point, which are, in fact, as I shall presently show, founded on a misconception respecting the sceptical position.

140. I contend, then, in the first place, that the realistic argument, even if it proved all that Mr. Spencer thinks it proves, is not sufficient to establish the ordinary belief in an external world. I contend, in the second place, that the psychological facts on which the argument rests are, when properly understood, not inconsistent with either Idealism or Scepticism. And I contend, in the third place, that if the argument is, as Mr. Spencer thinks it is, subversive of any theory of Idealism or Scepticism, it is not less subversive of Mr. Spencer's own theory of Transfigured Realism.

141. Putting all these statements together, we arrive at the conclusion that the individual looking at Mr. Spencer's book is unconscious of any of the properties of matter, and has, as the sole content of his consciousness, an indefinable consciousness standing for an unknown and unknowable mode of being beyond consciousness!

This is not a very satisfactory or instructive result; but it is one of a kind which can scarcely be avoided by any thinker who tries to use our ordinary and natural beliefs as weapons against the sceptic, at the very time when he is attempting to establish a theory against which all our ordinary and natural beliefs rebel. To my mind the effort to upset the results of critical analysis (whatever these may be) by an appeal to uncritical opinion is as reasonable in the case of the sceptical view of the external world as it would be in the case of the Copernican theory of the Solar System, and not nearly so reasonable as it would be in the case of the Freedom of Will. But however this may be, whether the method be good or bad, if it is applied at all it must be applied impartially. It will not do to reject Idealism because it is in opposition to natural convictions of mankind, unless you are prepared to say that you think the natural

convictions of mankind are sound: and you cannot think that the natural convictions of mankind are sound unless you are prepared to endorse opinions which are not only unfitted to sustain criticism in themselves, but which would render Physical Science an absurdity. If our instinctive judgments are sufficient to prove that an independent object exists, they are sufficient to prove that it is coloured, extended, and with a particular weight, configuration, and texture. If physical science and introspective analysis are to be believed when they show that colour and the properties of matter are, as Mr. Spencer says, "subjective affections," they deprive the appeal to our instinctive judgments of all the weight it might otherwise possess.

142. It is a favourite practice with Mr. Spencer, whenever he happens to disbelieve a proposition, to inform those who *do* believe it that it "cannot be realised in thought". It would be interesting to know how far he can realise in thought the "mysterious" fact of "a consciousness of something which is yet out of consciousness". To ordinary people it might be open to say that they believed it, though they could not realise it: but no such reply seems possible to Mr. Spencer. He is of opinion that we cannot really believe a proposition which we cannot think, and that we cannot think a proposition unless the subject and predicate are realised in thought. Now "a mode of being separate from myself produces changes in my conscious states," is one proposition in which I understand him to believe. "This mode of being, since it is unknown and unknowable, cannot be realised in thought," is another. If he *can* believe the first proposition without its subject being realised in thought, his general theory of knowledge, and most of the positive positions contained in the "First Principles," must be abandoned. If he *cannot* believe it except on those terms, then either he is wrong when he says he *does* believe it, or he is wrong when he supposes that it is incapable of being realised in thought. He would seem to be in the unfortunate position of having devised a theory of knowledge in the main for the purpose of establishing a realistic system, and of having devised a realistic system which is incompatible with his theory of knowledge.

That he is not unaware of the difficulties which surround a theory according to which we know the Unknowable, I admit; for he struggles, not very successfully, to get over them in his "First Principles," by the help of such metaphorical expressions as "nascent

consciousness" and "raw material of thought". My complaint is that, holding these opinions, he considers it a sufficient answer to make to any belief of which he disapproves that its terms cannot be "realised in thought," or "be joined together in consciousness"; though neither Theology nor Metaphysics contain, so far as I know, any proposition of which these things can more truly be said than the propositions respecting the external world, which Mr. Spencer assures us have the "highest validity possible".

143. What Science requires to have proved is the existence of matter, which shall be independent of perception and sensation, shall produce perception and sensation, shall at the same time possess mass, solidity, extension, and so forth. Is this matter Mr. Spencer's unknowable? We must answer, No. In the first place because, according to Science, it is decidedly knowable; in the second place, because Mr. Spencer tells us that the matter which is "extended and resistant" is related to the unknowable as effect to cause. Is it, then, the knowable? Again, we must answer, No; because, according to Mr. Spencer, the "objective agencies" which produce our "subjective affections" are in themselves "unknown and unknowable".

Mr. Spencer's elaborate argument is, therefore, altogether beside the mark. In proving, or, I should rather say, in attempting to prove, the existence of the unknowable, he has aimed at the wrong object. The true state of the case is that the external world required by Science is very much more like that contemplated in the Crude Realism (as he contemptuously calls it) of "the child or the rustic" than it is like that propounded by the Transfigural Realism affected by himself. Even admitting, therefore, that the arguments establishing the latter are as unanswerable as he supposes them to be, our philosophic position would not be much improved. If the scientific creed respecting the external world be rejected, the unknowable will hardly save us from scepticism; while, if the scientific creed be accepted, the unknowable is foredoomed to the same existence of *otium cum dignitate*, which, according to Jacobi, is enjoyed by Kant's "thing in itself".

If I rightly understand the line of thought taken up in the "First Principles," Mr. Spencer would reply to this by saying that matter as known to us, and as dealt with by Science, may be regarded as permanent and independent because it is the effect of

the unknowable cause which is permanent and independent. But, according to Mr. Spencer's doctrines, the only effects of the unknowable of which we have immediate knowledge consist of "subjective affections," which are neither permanent nor independent. These are not the subject-matter of physical science. When a Physicist asserts that vibrating molecules produce the sensation of violet light, he means that certain material particles which *are* not, which never *have been*, and which never *will be* in (human) consciousness, and which would vibrate precisely as they are doing now if (human) consciousness was destroyed, produce certain conscious phenomena. What Mr. Spencer must think that they ought to mean by the assertion is, that a mode of the unknowable which is symbolised (and, so far as I can see, quite arbitrarily symbolised) by the member of the "faint aggregate of our conscious state" known as the *concept of a vibrating particle*, is the producing cause of a "member of the vivid aggregate" known as the *sensation of violet light*. No verbal contrivance can bridge over the discrepancy between two statements, one of which says that the cause of a phenomenon is a vibrating material particle, and the other that it is an entity possessing none of the attributes of matter, and which, since it is neither in space nor time, must be incapable of vibration. These are propositions which assert different things, and not merely the same thing in different language, so that Mr. Spencer, even if he had proved the truth of the second, would have done nothing towards establishing a realism such as is required by current scientific doctrines.

"The final remark to be made," says Mr. Spencer, "is that Anti-Realistic beliefs have never been held at all. . . . Berkeley was not an Idealist. . . . Nor was Kant a Kantist." Nor, I will venture to add, is Mr. Spencer a Transfigured-Realist. Without doubt the natural beliefs which in his ordinary moments hold a not less undisputed sway over the philosopher than they do over the "child or the rustic," will be as victorious against Mr. Spencer's doctrines as they are against those of any of the metaphysicians whom he accuses of losing themselves in the "mazes of verbal propositions". On the whole, indeed, he is less fortunate than they. For it is his singular ill fortune to have failed with entire completeness in all the objects which a man may propose to himself in constructing a theory of the external world. Some may wish to justify the common-sense of mankind, some to justify the teachings of Science, some to prove the being of a God, some to give free rein to speculation

without any secondary object. It was reserved for Mr. Spencer to elaborate a theory which can pretend to justify the assumption neither of the man of science nor of the theologian, and which will satisfy the requirements neither of the ordinary man nor of the philosopher.

Looking back over the nineteen chapters we have been considering, and over the earlier half of the "First Principles," it is impossible not to regret that the ambition to produce a 'System of Philosophy' should have forced our author into paths where his remarkable powers of mind show to comparatively small advantage. Could he have been content with giving to the world "Suggestions towards a theory of the Universe on the basis of the ordinary scientific postulates," his astonishing faculty for collecting from every department of knowledge the facts which seem to tell in his favour would have had free scope, while his somewhat blunted sensibility in the matters of difficulties and contradictions might have been of actual advantage. In trespassing on metaphysical ground, the virtues which he possesses as a thinker—his extraordinary range of information and his ingenuity in framing original and suggestive hypotheses—become comparatively useless, while the robust faith in his method and results by which he is animated, necessary as I admit it to be in order that he may be sustained through his protracted labours—is from a speculative point of view an almost unmixed evil.

The Evolution of Belief.

144. Ever since there has been speculation on the subject of varieties of opinion, this fact must have been obvious, that a man's beliefs are very much the results of antecedents and surroundings with which they have no proper logical connection. That the sons of Christians are much more often Christians, and the sons of Mohammedans much more often Mohammedans, that a man more commonly holds the opinions of those with whom he lives, and more commonly trusts the policy of the party with whom he acts, than on the theory of probability could happen supposing that conviction was in all cases the result of an impartial comparison of evidence, must always have been plain to the most careless observer. In other words, it must always have been known that there were causes of belief which were not reasons.

The progress of knowledge has not led us to increase, but rather to diminish, our estimate of the part which reasons as opposed to other causes have played in the formation of creeds ; for it has shown us that these reasons are themselves the result of non-rational antecedents, so that even when a man attempts to form opinions only according to evidence, *what he shall regard as evidence* is settled for him by causes over which he has no more control than he has over the natural forces by which a particular flora is produced at any particular place and time.

The scientific evidence for this truth is various and overwhelming. It is justified *a posteriori* with regard to individuals by common observation, with regard to races by every improvement in our historic method and every addition to our historic knowledge. Physiology shows it *a priori* by demonstrating the dependence of thought on the organism, and of the organism on inheritance and environment, while finally evolution binds up these detached lines of proof into an imposing and organic whole.

145. If any result of 'observation and experiment' is certain, this one is so—that many erroneous beliefs have existed, and do exist in the world ; so that whatever causes there may be in operation by which true beliefs are promoted, they must be either limited in their operation, or be counteracted by other causes of an opposite tendency. Have we then any reason to suppose that fundamental beliefs are specially subject to these truth-producing influences, or specially exempt from causes of error? This question, I apprehend, must be answered in the negative. At first sight, indeed, it would seem as if those beliefs were specially protected from error which are the results of legitimate reasoning. But legitimate reasoning is only a protection against error if it proceeds from true premises, and it is clear that this particular protection the premises of all reasoning never can possess. Have they, then, any other? Except the 'tendency' above mentioned, I must confess myself unable to see that they have ; so that our position (as evolutionists) is this—from certain ultimate beliefs we infer that an order of things exists by which all beliefs, and therefore all ultimate beliefs, are produced, but according to which any particular belief, and therefore any particular ultimate belief, must be doubtful. Now this is a position which is self-destructive.

146. The difficulty only arises, it may be observed, when we are considering *our own* beliefs. If I am considering the beliefs of some other person—say of some mediæval divine—there is no reason why I should regard them as anything but the results of his time and circumstances. I observe that he lived in such a country, fell under the influence of such and such teachers, came across such and such incidents, and then I infer, with much self-contentment, that his beliefs could not have been other than they were. I may even pay them the compliment of pointing out that they form a necessary stage in the general evolution of humanity. But when I come to consider *my own* beliefs as a stage in the general evolution of humanity, then there emerges the contradiction mentioned above. If they represent such a stage, all of them *may* be, and many of them *must* be, false. Why not the particular belief in Evolution? Because it is scientifically demonstrated? This only removes the difficulty a stage further back. It must be demonstrated ultimately from something which is not demonstrated; and these undemonstrated beliefs are necessarily rendered doubtful by the reflection that they form part of the stage in the evolution of humanity.

147. 'But if this is all,' the advocates of Evolution may be inclined to reply, 'you have proved nothing more than we are prepared to grant. We concede, without difficulty, that our theory is not at present rigorously certain; and even that it can never become so. You have shown that doubt must always attach to our original data; we will go further, and admit that error may always creep into our most careful deductions. But this only shows—what nobody ever disputed—that we must content ourselves in science, as in everything else, with something short of rigorous demonstration. Unless you can show us that our system has some other defect, not necessarily incident to the work of fallible man, your arguments will be wasted on people who in the main agree with you.' I reply that I can show that it has some other defect; and the defect is this: If we suppose Evolution to become what every evolutionist must wish it to be—though he may admit that it is not—namely, a solid piece of demonstration resting on axiomatic premises, from that moment it becomes self-contradictory. It is impossible as soon as it is certain; because, by the very fact of its becoming certain, we obtain demonstrative proof that the premises

of the system, and therefore the system itself, is uncertain. A system of which this can be said is not merely doubtful, it is incoherent.

The precise nature of this objection will perhaps be more clear if, instead of being put in this its most abstract and general form, a concrete example of it is taken.

We may suppose, then, a conversation between an Evolutionist and an Enquirer, in which, when the former has explained in the usual ways how human beliefs, after passing through infinite gradations of diminishing error, have at length reached the highest development they are now capable of in the opinion he himself professes, the Enquirer continues the dialogue by asking :—

Enq. Do you suppose that this development of beliefs has now reached its limits, or do you anticipate as great a change in the future as has occurred in the past?

Evl. However great the superiority of my views may be over those of my remote ancestors, or indeed over those of my contemporaries who are still under the influence of tradition, there is every reason to suppose that the causes which have produced this superiority are still in operation, and that we may look forward to a time when the opinion of mankind will bear the same relation to ours as ours bear to those of primitive man.

Enq. A glorious hope! One, nevertheless, which would seem to imply that many of our present views are either entirely wrong, or will require profound modification.

Evl. Doubtless.

Enq. It would be interesting to know *which* of our opinions, or which class of them, is likely to be improved in this way off the face of the earth. For example, is the opinion you have just expressed, that beliefs are developed according to law—is that opinion likely to be destroyed by development?

Evl. To answer your question in the affirmative would appear to involve a contradiction. If (as we assume) development is truthwards, it is impossible that development should produce a disbelief in development.

Enq. I understand you to hold then that a belief in development is true, and therefore indestructible, and that in this it differs from many of our other beliefs, of which we cannot, unfortunately, say the same. It would be important to know the grounds of this distinction, in order that we might see how far it was capable of general application.

Evl. Evolution is a theory arrived at by received scientific methods. Doubtless, all results of which the same may be said are equally true, and will be equally permanent.

Enq. You talk of scientific methods—but a method must proceed on a principle or principles. How do you get at these?

Evl. The principles you speak of are, I suppose, the assumptions which every one must start from, who expects to make any progress in knowledge.

Enq. These assumptions, as I understand you, are what render a scientific method possible. They cannot, therefore, be arrived at by a scientific method, nor can they belong to that class of beliefs which, as you just pointed out, the progress of evolution will leave uninjured.

Evl. Still, you must assume something.

Enq. But the difficulty here, as it seems to me, is, that if you start from your idea of evolution, these assumptions, like all other beliefs not arrived at by 'received scientific methods,' are, or may be, mere transient phases in the development of opinion, like the doctrines involved in ancestor worship or theism. Nevertheless, it is only by starting from these assumptions that you ever get to your theory of evolution at all. In other words, if Evolution is certain, these assumptions must be certain, when regarded as premises, and uncertain when regarded as products. This is not easy to believe.

Evl. Still, you know, you must assume something.

Enq. Nevertheless, it is a pity you cannot so order your assumptions as to make your system more self-consistent. At present you seem somewhat to resemble an astronomer who should base his whole theory of the real motion of the heavenly bodies on the supposition that his own planet was at rest; but should unfortunately discover that one of the necessary conclusions from his theory was that his planet, in common with all the others, was in motion. Of such a one we should probably say, that if his deductions were correct his premises must have been wrong, while if his premises were correct his deductions must have been wrong.

So far I have only considered this difficulty as it applies to Evolution, because it seemed to me that the issue to which I wished to call attention could be thus most conveniently raised. It is a mistake, however, to suppose that the difficulty necessarily attaches to Evolution alone. Every theory is obnoxious to it according to which all beliefs are supposed to be caused, while fundamental beliefs are caused in such a manner as to make them uncertain.

Now it is to be noted that this description is rather a wide one: and must undoubtedly be held to include the world of Science as ordinarily conceived.

For it is plain that current scientific methods can lead to no other result than that belief is a product. If experience can prove anything, it can prove that. There is here none of that doubt which has been thrown on the existence or non-existence of free will by the real or supposed discrepancy between the deliverances of introspective consciousness and the verdict of ordinary historical experience. In this case, whether we consult statistics, whether we interrogate consciousness, whether we judge of the matter on grounds furnished by physiology, or ethnology, or history, or natural selection — whatever scientific doctrine or scientific method be brought to bear on the question, but one result is obtained: beliefs, all beliefs, are the result of the operation of natural causes, and of these alone. And since it is no less certain, I apprehend, that these causes are of a kind to throw doubts on the beliefs they produce, it follows, according to our canon, that ordinary scientific methods land us in contradiction. It must, however, be observed that there is a justification, beyond mere convenience of exposition, for making Evolution especially the subject of this criticism, because it is Evolution alone which *necessarily* claims to regulate the whole world of phenomena. The special sciences—physics, chemistry, and so forth—might very well go on, even if their methods were not universally applied, though it must be admitted that it is not easy to find a principle of limitation. But if Evolution is not universal, it is nothing. If certain phenomena are to be left outside it, if it cannot without contradiction and confusion explain, potentially at least, how the whole world as it *is* follows necessarily from the world as it *was*, it certainly appears to me that it ought to modify either its methods or its pretensions.

Summary.

148. I pointed out that our knowledge of past events was entirely founded upon reasoning from effect to cause; and that there was a *primâ facie* difficulty attaching to all reasoning of this kind, arising from the circumstance that more than one cause might possibly produce a given effect. The problem, therefore, which required consideration was, how to distinguish from among the causes which are merely possible the one which was actual or probable. For

this problem I could find no solution. The ordinary procedure which is followed by men of science is to estimate the comparative probabilities of the rival hypotheses, on the basis of some theory respecting the condition of things at the time of which they are treating. Now this theory, if it is not a mere figment of their own imagination, must, like any other historical proposition, be itself in the first instance founded upon an inference from effect to cause. But this process of resting successive inferences from effect to cause on historical hypotheses which can only be justified by other inferences from effect to cause, must evidently have a limit. When that limit is reached, what is to be our next ground of belief? On this point Scientific Philosophy is silent, and we are driven to the conclusion, that if two or more explanations of the universe are barely possible, they must, for anything we can say to the contrary, be equally probable; which is as much as to say that one version of history need not be less likely than another, merely because it seems in comparison unnatural and extravagant.

These remarks, of course, only hold good as between causes which are *possible*. If a cause *could* not produce the effects which are our sole premises for inferring the existence and character of any cause at all, *cadit quæstio*. Supposing, therefore, it could be shown that at any given time only one set of facts could result in the world as we now see it, we should know the history of that time with a perfect assurance. Can this ever be shown? It cannot. It cannot be shown, I imagine, even if we restrict our attention to those phenomena with whose laws we are acquainted. But, besides these, there may be countless powers with the laws of whose operations we are entirely unacquainted, and by which all that we see may have been produced. If we once admit the possibility of their existence (and I do not know by what authority we are to deny it), all historical inference is thrown into confusion. We can have no ground for supposing these hypothetical powers to begin acting at one time rather than at another, whether they be powers which should be described as metaphysical, theological, or merely unknown. In order, therefore, that a man may have any rational confidence in the history of the Cosmos as revealed in the teachings of Science, he must be something more than an Agnostic. He must have very solid grounds for believing, not only that through the infinite past only one series of phenomena can be assigned capable of having produced the actual universe, but that nothing besides phenomena capable of acting on phenomena has ever existed at all—and these

solid grounds of belief or disbelief must *not* be drawn from history ; but, if derived from experience at all, must be derived from his own immediate observations.

Here terminated the first part of our inquiry. Its general result is to show (1) that from the particular knowledge obtained by observing the phenomena of a world assumed throughout this part of the Essay to be *persistent*, no scientific conclusions could be drawn : and (2) that even if we suppose these phenomena to be part of a world governed by causation, we were not much advanced, and that therefore, (3) some further principles or modes of inference have need to be discovered before Science is placed on a rational foundation. Of these 'further principles,' since their nature is altogether unknown, no more notice has been taken.

149. Now every belief, without exception, has according to Science got a cause. But every belief has by no means got a reason, and there are some beliefs which cannot possibly have reasons, namely, those ultimate ones on which all others depend ; these, it is evident, must be products, but cannot be conclusions.

Confining our attention, then, to ultimate beliefs considered merely as products, it becomes evident that, *as products*, they are in no way to be distinguished from the infinite multitude of beliefs which rise into notice, become the fashion, fall out of favour, and are forgotten by all but the historians of opinion. Like them, they are the effects of material antecedents, the necessary results of a primeval arrangement of atoms. But these, the reader must note, are causes which unquestionably produce much error, and which it might be plausibly maintained have produced more error than truth. There is consequently a distinct probability—though, of course, one uncertain in its amount—that any belief, and therefore any ultimate belief, which results from their operation will be erroneous.

But if now, from looking at the question exclusively from the causal side, we turn round and look at it from the cognitive or logical side as well, we become conscious of a difficulty. For in so far as Science conforms to the ideal of a rational system, it consists of conclusions certainly inferred from certain premises. But one of the conclusions thus certainly inferred is (as we have just seen), that the premises of all science are doubtful ; so that the more certain we choose to consider our inferences, the more we diminish the only ultimate assurance we have for believing them at all.

If it be replied that this consequence may be avoided by considering the scientific system—as all reasonable men do actually consider it—to be merely probable, I answer that we cannot consider any system to be even probable which, if it were suddenly to become certain, would be self-contradictory, and therefore impossible. Such a supposition is absurd. No conclusion less than the recognition of the fact that there is some fundamental error or omission in the account given by Science, and more especially by the doctrine of Evolution, of the genesis of our ultimate beliefs, will satisfy the argument; though how this error or omission is to be corrected or supplied without entirely altering our ordinary theories about the history of the universe, I am unable to say.

This discussion in the thirteenth chapter concludes the speculative inquiry into the nature and validity of the evidence which can be produced in favour of the current scientific creed. At every point, the results arrived at have been unfavourable to Science. It fails in its premises, in its inferences, and in its conclusions. The first, so far as they are known, are unproved; the second are inconclusive; the third are incoherent. Nor am I acquainted with any kind of defect to which systems of belief are liable under which the scientific system of belief may not properly be said to suffer.

If the reader, in the interests of speculation, feels inclined to complain of the purely destructive nature of the criticisms contained in the preceding pages, I reply that speculation seems sadly in want of destructive criticism just at the present time. Whenever any faith is held strongly and universally, there is a constant and overpowering tendency to convert Philosophy, which should be its judge, into its servant. It was so formerly, when Theology ruled supreme; it is so now that Science has usurped its place: and I assert with some confidence that the bias given to thought in the days of the Schoolmen through the overmastering influence of the first of these creeds was not a whit more pernicious to the cause of impartial speculation than the bias which it receives at this moment through the influence of the second.

It is curious to remark how similar are the consequences of this bias in the two cases. Philosophy, or what passed for such, not only supported Theology in the Middle Ages—it became almost identical with it; it not only supports Science now, but it has almost become a scientific department. To hear some people talk, one would really suppose that Philosophy consisted either of the more general aspects of scientific truth or of the results obtained by

applying the 'approved methods of physical investigation' to mind, or even, which is still more extraordinary, to the nervous system! It may be admitted that nothing can well be more interesting than the treatment of these first of the subjects by such writers as M. Comte and Mr. Spencer; though it can hardly be necessary again to insist on the fact that no mere generalisations within the sphere of Science, though they may furnish materials for a 'Positive' Philosophy, can ever be expected to give us what I should term a "Scientific" one, any more than a work which, to start with, assumed the truth of the Three Creeds, would constitute a rational exposition of Christian evidences. While, with regard to empirical psychology and empirical physiology it is only necessary to remind the reader of what was shown at sufficient length in the first chapter, namely, that no progress made along these very respectable lines of research, however much it may increase our knowledge of mind and of body, can ever produce, or even perhaps suggest, a solid and satisfactory theory of the grounds of belief.

Whatever be the errors and shortcomings of the preceding discussions, I have, I trust, in the course of them avoided this particular confusion (I mean between aspects of Science or parts of Science and Philosophy) which is the fertile cause of so many others. The path of my argument has been a narrow one, deviating neither into Science on the one hand nor into Metaphysics on the other; and if it seems to run through a somewhat uninteresting region, and to lead to no desirable goal, yet it, or something like it, must, I believe, be traversed before intellectual repose is finally reached. If speculations which do nothing but destroy seem to be, as indeed they are, unsatisfactory even from a speculative point of view, the reader must recollect that definite and rational certainty is not likely to be obtained unless we first pass through a stage of definite and rational doubt.

[*The following passage is taken from the first part of the article "Creative Evolution, and Philosophic Doubt," contributed to the "Hibbert Journal," October, 1911.*]

150. It must be owned that when the Universe is in question, we and our affairs *are* very unimportant. But each several man has a position, as of right, in his own philosophy, from which nothing can exclude him. His theory of things, if he has one, is resolvable

into separate beliefs, which are *his* beliefs. In so far as it is a reasoned theory, these beliefs must be rationally selected; and in every system of rationally selected beliefs there must be some which are accepted as inferences, while there must be others whose acceptability is native, not derived, which are believed on their own merits and which, if the system were ever completed, would be the logical foundations of the whole. Some beliefs may indeed have both attributes; the light they give may be in part original, in part reflected. We may even conceive a system tentatively constructed out of elements which are first clearly seen to be true only when they are looked at as parts of a self-evident whole; cases in which one might almost say (but not quite) that the conclusion is the proof of the premises, rather than the premises of the conclusion.

It will be observed that this way of looking at philosophy makes each individual thinker the centre of his own system—not, of course, the most important element in it *as known*, but the final authority which justifies him in saying *he knows it*. The ideal order of beliefs, as set out in such a system, would be the order of logic—not necessarily formal logic, but at least an order of rational interdependence. There is, however, another way in which beliefs might be arranged, namely, the causal order. They may be looked at from the trammelled criticism of beliefs; let us begin with the beliefs of 'positive knowledge'. If we are to believe nothing but what we can prove, let us see what it is that we *can* prove.

I attempted some studies on these lines in a work published in 1879. And I am still of opinion that the theory of experience and of induction from experience needs further examination; that the relation between a series of beliefs connected logically, and the same beliefs mixed up in a natural series of causes and effects, involves speculative difficulties of much interest; and that investigations into the ultimate grounds of belief had better begin with the beliefs which everybody holds than with those which are held only by a philosophic or religious minority.

It is true that isolated fragments of these problems have long interested philosophers. Achilles still pursues the tortoise, and the difficulties of the chase still provide a convenient text on which to preach conflicting doctrines of the Infinite. The question as to what exactly is given in immediate experience, and by what logical or inductive process anything can be inferred from it, the nature of causation, the grounds of our conviction that nature follows laws, how a law can be discovered, and whether following laws is the

same as having a determined order—these, or some of these, have no doubt been subjects of debate. But even now there is not, so far as I know, any thoroughgoing treatment of the subject as I conceive it; and certainly Mill, who was supposed, at the time of which I have been speaking, to have uttered the last word on empirical inference, stared helplessly at its difficulties through two volumes of logic, and left them unsolved at the end.

It was not on these lines, however, that the reaction against the reigning school of philosophy was to be pursued. In the last twenty years or so of the nineteenth century came (in England) the great idealist revival. For the first time since Locke the general stream of British philosophy rejoined, for good or evil, the main continental river. And I should suppose that now in 1911 the bulk of philosophers belong to the neo-Kantian or neo-Hegelian school. I do not know that this has greatly influenced either the general public or the scientific world. But, without question, it has greatly affected not merely professed philosophers, but students of theology with philosophic leanings. The result has been that whereas, when Mill and Spencer dominated the schools, 'naturalism' was thought to have philosophy at its back, that advantage, for what it is worth, was transferred to religion. I do not mean that philosophy became the ally of any particular form of orthodoxy, but that it advocated a spiritual view of the Universe, and was therefore quite inconsistent with 'naturalism'.

Though I may not count myself as an idealist, I can heartily rejoice in the result. But it could obviously give me very little assistance in my own attempts to develop the negative speculations of philosophic doubt into a constructive, if provisional, system.

Education: Public School.

151. It would be hard, I think, to say whether the English school system has been made by the masters for the boys, or by the boys for the masters. In truth, it is as natural and, therefore, as inexplicable a growth of our English soil as the British Constitution itself. For my part I am a hearty believer in that system. I hold that while a public school is the product of the English character, the English character has itself owed a great deal to the public school, and the merits of the public school are not to be adequately gauged either by the character of its curriculum or the success, however great, of the scholars whom it turns out. It has merits which nearly touch the character and the future of those never destined to excel in scholarship or in any other branch of study, but who, by the character which they have formed under the influences of a public school, have gone forth to every clime and to every land, and have done honour to the country which gave them birth. . . . [1899.]

152. I hold that there is no probability, and there is certainly nothing less desirable, and certainly if it were probable it would not be desirable, that the dead languages—Greek and Latin—should be excluded from the place which they have occupied in the higher education of the whole of Europe for centuries past. But I think we have to recognise that we cannot quite look at education at the end of the nineteenth century with the same eyes with which our forefathers looked at it at the period when science did not exist, and when no literature existed—no literature that had to be taken account of existed—except in two languages, neither of which was a living language. From the nature of things they were driven to base their education wholly upon the study of the great classical authors. They were driven to it not merely because those authors are, and must always be, an admirable instrument of education, but because there was in their time literally no other field of human knowledge or of human research to which they could turn for subjects in which the youth of their age might be adequately educated. We live, and we happily live, in a very different period. And if it be true, as I think it is, that the classical languages still form the most convenient instrument of education, let us be careful, let us who hold that view be careful, that we do not put it on excessive grounds, that we do not press our case too far, and that, in

the face of many who think that the whole ancient scheme of education should be revolutionised, we do not give ourselves away by claiming for the classical system things which, after all, the classical system cannot give us. I hold with, I think, almost everybody who has studied the question that all education which is not in part, and in considerable part, a literary education is necessarily maimed and one-sided; an education, that is to say, which does not make the person educated at home in some great imaginative literature, and which does not put him in sympathy with the great literary artists and the great thinkers of the past, and perhaps of a very different epoch, is an education which must leave undeveloped some of the finer sympathies, some of the more valuable qualities, which education ought to develop.

But let us be quite honest with ourselves. This literary education can only be really profited by, fully profited by, in those cases where the student is really at home in the language which embodies the literature which he is studying, and unless the Head Master and his colleagues are much more fortunate than those unhappy beings who had to educate me and my contemporaries, there must be, and I am sure there is, a very large portion of those who go through a classical training who do not gain that familiarity either with Greek or with Latin which surely is absolutely necessary if the real literary and imaginative qualities of those two great literatures are to be thoroughly assimilated and absorbed by the student. Do not let it be supposed that on that account I think those who perhaps never reach that degree of knowledge in those most difficult tongues have therefore wasted their time. I do not hold that view. I believe, for various reasons which I need not enter into now, from this fact, among others, that the body of knowledge to be acquired is a fixed body of knowledge, and not changing from year to year and almost from day to day, like Natural Science, from the fact that it concentrates attention, that it requires the pupil to be perpetually applying general rules to new cases, for the reason that it does not lend itself to 'cram,' for the reason that there is always an admirable body of persons competent to teach it—I believe that for even those not destined to be scholars in that full sense of the term which I have indicated, classical education may be an admirable training for the mind. Should I be going too far if I said that the majority of boys at our public schools do not get from their knowledge of Greek or Latin any real living insight into Greek or Latin literature? For them, I say, it is really imperative if we believe, as I believe, in a literary education, that we should, through the medium of some more easily learnt language, either at school or after school, give them that knowledge of the past, what has been thought of the past in many lands by men of genius, which they could not have if they are to be restricted simply to the rudiments of Greek or Latin which they have been able to acquire at school. I therefore think that all those who believe in literary training—and amongst those I may rank, I suppose, every

advocate of scholarship—I am sure that all those ought to do their best to encourage, I do not say by dogmatic or scholastic processes, but to encourage such other knowledge of these more modern literatures as shall enable those not so fortunate as themselves, and those who never can have the acquirements which they have attained, to give them some chance of obtaining all those benefits from a literary training which a literary training, and a literary training alone, is competent to give.

As for the controversy which goes on between the advocates of science and the advocates of literature, I really have hardly patience to speak of it, because it seems to me, as I have sometimes heard the two sides stated, utterly absurd. I cannot really conceive that any man, however enamoured of scientific method, should for a moment undervalue that insight into human nature and the interests which have always stirred human nature, and the manner in which those interests have been transformed by men of genius from time to time in the imaginative crucible of literature—I cannot imagine that such a training should be undervalued even by the most rigid advocate of scientific method. On the other hand, is it credible that in these days there should any man be found who should undervalue that curiosity about the world in which we live, which science cannot indeed satisfy, but towards the satisfaction of which, after all, science is the only minister? There is a method of studying science, and there is a method of studying classical literature, or modern literature, which, no doubt, has educational value to no man—a method of study which may indeed benefit mankind in the sense that it increases knowledge, but which does nothing for the student, either to satisfy his imaginative curiosity, or to strengthen his imaginative appreciation of his fellow-man. You may study chemistry, and you may study Greek versification, in a spirit which will leave you as barren and poor after you have done it as it found you before you began it; but, after all, if we are to make the best of that heritage of great works which the men of old have left us, if we are to make the best of that insight into the physical world which from day to day is extending under the magic touch of men of science, it is surely folly that any man should think that he has done the best for himself until he has drunk as deeply as he may of both sources of inspiration. [1899.]

153. I confess that, as far as I am concerned, I have never been able to make a theory satisfactory to myself as to what is or is not the best kind of education to be given in those great public schools which are the glory of our country, and which, in their collective effect upon British character, I think cannot be overrated, but which are subjected, and perhaps rightly subjected, to a great deal of criticism as to that portion of their efforts which is engaged on the scholastic and technical side of education. I cannot profess myself to be satisfied with the old classical ideal of secondary education; and yet I am not satisfied—perhaps I ought to

put it more strongly and say I am still less satisfied—with any substitute I have seen for it. I have heard the old system defended on the ground that the great classical languages contain masterpieces of human imagination which have never been surpassed; and, of course, that is true. But I do not think we can defend classical education in the great public and secondary schools on that ground alone. You have only got, after all, to make a simple statistical calculation, which perhaps we cannot put down in figures, but which every man with the smallest experience, perhaps with the smallest memory of what he was and what his school-fellows were at the age of 17 or 18, can make, to know that the master of the dead languages of a kind which enables them to enjoy those great works with their feet on the hearth—which is the only way to enjoy any work of literature, the number of boys who leave the great public and secondary schools with that amount of knowledge is a very, very small percentage. You cannot keep up a system of education for a very, very small percentage; and, if that is the only defence of classical education, I think it will have to be abandoned except for the few who are qualified to derive all the immense advantages which to the few they are capable of imparting.

But when I turn to the other side and ask what the substitute is, then I confess I am even less happy than when I consider the classical ideal; for I am quite sure—no, I am not quite sure, but I think—you will never find science a good medium for conveying education to classes of forty or fifty boys who do not care a farthing about the world they live in except in so far as it concerns the cricket field, or the football field, or the river—you will never make science a good medium of education for those boys; for only a few are capable at that age, and perhaps at any age, of learning all the lessons which science is capable of teaching. I go further. I never have been able to see, so far as I am concerned, how you are going to get that supply of science teachers for secondary schools who have both the time to keep themselves abreast of the ever-changing aspects of modern science and to do all the important work which the English schoolmaster has to do, which is that not simply of teaching classes, but of influencing a house and impressing moral and intellectual characteristics on those committed to his charge. . . . [1903.]

Education: Technical and Scientific.

154. It is no doubt a comparatively new phenomenon that science and industry should be brought so close together. We are familiar with it, and we forget that it is not many generations old. I think you will find, if you look at the genesis of the great mechanical and industrial arts, that they have not, as a rule, in generations gone by, been based upon theoretical study, but that they have been the happy product of the rule of thumb carried out by men of great mechanical and industrial genius. But those days have passed. Science and practice have met together in a fruitful embrace, and now it is perfectly impossible that any nation should really keep in the van of industrial progress if it ignores and neglects the teaching of theoretical science ; and I believe, though not impossible, it is extremely improbable that theoretical science can be expected to advance with the rapid strides to which we have been accustomed in the last two generations unless it continues to learn, as it has learned, from the experience of practical men of business.

It certainly is an astonishing thing to reflect how science, which reaches to the heavens in its investigation, rests on the earth, and is mixed with some of the most prosaic details of our common life. The speculations of the most abstract mathematics, of the highest chemistry, and of physics in all its branches, not only carry us into provinces which seem absolutely remote from human experience, as it is or ever can be, but they are also mixed up with dividends, with mills and manufactures, and with all the elements of the most material progress ; and if it were not that we see by experience that theoretical science gains by this contact instead of losing, we should almost be afraid it would be vulgarised by its contact with the necessities of everyday experience. . . . [1891.]

155. There is something necessarily ennobling, widening, and elevating in the study of the broad theories upon which the success of any particular processes may be found to depend. But do not let me be supposed even for one moment to under-value in what I have said those older methods of education, which almost seem to ignore practical money-making utility, and which turn their attention to the development of the human mind. Make technical instruction as good as you will, it never can be everything ; it never can satisfy the needs of the human mind ; it never

can satisfy the aspirations of any educational reformer : and I would pray those who are wisely and rightly giving up their time to the practical study of that which should be their business in life to recollect that side by side with that it is not impossible, and it is more surely beneficial, to carry on other studies not leading to a good income, not necessarily connected with what is called rising in life, which are nevertheless necessary to the human mind, if the human mind is to be equally developed in all directions.

1892.

156. There are many who think, and they give very strong reasons for thinking, that science is not suited to form the general subject of a course applicable to all classes, through which all classes of the community should be passed. There may be much, and I think there is much, in what they urge ; but, on the other side, we may say, and say with truth, that there is no education better than a scientific education for those who desire to go in for it and wish to learn not a mere series of scientific formulæ by rote, but who wish to know the very essence of that which they are taught ; who wish to understand the laws of nature which their teachers endeavour to instil into them, and who do not desire merely to become students of natural science for the purpose of passing a competitive examination, but who desire to know it for the greater object of understanding the works of God and nature, or for the necessary though inferior end of fitting themselves for some active and practical work in life. For such persons I believe that no education can be better than a scientific education ; and if I leave that general question and come to the more restricted question of technical education, while I frankly admit that no man can learn in the classroom the same lessons that he will learn in the workshop, though I think that is a truth which should be impressed upon every man who comes to a technical school, yet I cannot doubt that in the face of advancing science, in the face of the increasing application of scientific method to industrial production, it would be sheer lunacy if this great country which depends absolutely, not merely for its greatness, but for its food, upon the success of its industries, were to ignore and despise the means of maintaining that supremacy which its rivals are spending hundreds of thousands a year to wrest from it. . . . [1892.]

157. It is to those who, very often with no special practical object in view, casting their eyes upon no other object than the abstract truth, and the pure truth which it is their desire to elucidate, penetrate ever further and further into the secrets of nature, and provide the practical man with the material upon which he works. Those are the men who, if you analyse the social forces of their ultimate units, those are the men to whom we owe most ; and to such men, and to produce such men, and to honour such men, and to educate such men, the Society whose health I am now proposing devotes its best energies.

I do not think that Englishmen need feel that they have been behind the rest of the world in evolving those root ideas which are the source of great discoveries, which are themselves great discoveries, and the source and root of other great discoveries. It may be, however—I think it is the fact—that though, as a nation, we have been as productive as other nations (I put it modestly) in the men of genius who have made these fundamental discoveries, I do not think, as a nation, we have sufficiently realised how great a part theory, how great a bearing theory, in these modern days, must necessarily have upon practice if we are to keep abreast of the rest of the world. We have produced great theorists, none greater; we have produced men of great practical genius, none greater. I am not sure, however, that at this moment we are not behind one, at least, of the great nations of the continent—perhaps more than one—in the art of combining theory and practice, in the art of so welding together into one organic and self-supporting whole the man of genius who, at one end of the scale, discovers the new laws of nature which have to be applied, and the man of practice, at the other end, whose business it is to turn those discoveries to account. . . . [1895.]

158. I am sure Mr. Bryce would agree with everything I have said upon this point, and everything I am going to say upon it, for I shall not go into controversial matter, because, while I think that those who object to technical education have their justification, it yet remains true that if you include, as you ought to include, within the term technical education the really scientific instruction in the way of turning scientific discoveries to practical account, if that is what you mean—and it is what you ought to mean by technical instruction—then there is nothing of which England is at this moment in greater need. There is nothing which, if she, in her folly, determines to neglect it, will more conduce to the success of her rivals in the markets of the world, and to her inevitable abdication of the position of commercial supremacy which she has hitherto held. I do not deny that if manufactures and commerce have an immense amount to gain from theoretical investigations, and if, as everybody will admit who has even the most cursory acquaintance, let us say, with the history of the discoveries in electricity and magnetism, pure science itself has an enormous amount to gain from industrial development,—while both those things are true, I am the last person to deny that it is a poor end, a poor object, for a man of science to look forward to merely to make money for himself or for other people. After all, while the effect of science on the world is almost incalculable, that effect can only be gained in the future, as it has only been gained in the past, by men of science pursuing knowledge for the sake of knowledge, and for the sake of knowledge alone; and if I thought that by anything that had dropped from me to-night I had given ground for the idea that I looked at science from what is commonly

called the strictly utilitarian standpoint, that I measured its triumphs by the number of successful companies it had succeeded in starting, or the amount of dividends which it gave to the capitalist, or even by the amount of additional comfort which it gave to the masses of the population, I should greatly understate my thought ; but I know this great Society, while it has in view these useful objects, still puts first of all the pursuit of truth, which is the goddess to which every man of science owes his devotion. And truth, not profit, must necessarily be the motto of every body of scientific men who desire to be remembered by posterity for their discoveries. . . . [1895.]

159. But there is another, certainly not less important, side from a national point of view—perhaps a decidedly more important side—I mean the complete scientific equipment of the student for those professions in which a thorough grounding in science, theoretical and practical, is now absolutely necessary if he is to make the most of himself and the most of the profession in which he is engaged. I have always been deeply interested in this aspect of the question, which is one specially considered in Germany and elsewhere, and the value of which we have perhaps in this country until recent years unduly ignored and neglected. It is an interesting question to ask ourselves how and why it comes about that it is only in the latter half of the nineteenth century that the absolute necessity of this thorough scientific grounding is now recognised in connection with great industrial enterprises. The only real reason I take to be this—that it is only after science has developed to a certain point, and after industry has developed to a certain point, that you can successfully and usefully combine the two, and that there is forced on you the necessity of recognising that every advance in theoretic science—or almost every advance—is reflected in a corresponding advance in industrial enterprise, and that in a large measure industrial enterprise in the practical application of science is day by day giving birth to new scientific conceptions and new improvements, either in the machinery of discovery or in the result of discovery.

If anybody wishes to have a concrete illustration of these abstract truths, I would ask him to make the following comparison. Take, for a moment, the career of the greatest man of science whom this world has ever seen, Sir Isaac Newton. So far as I know—I speak under correction—neither by Sir Isaac Newton himself nor by anyone during his lifetime were any of his epoch-making discoveries turned to any practical industrial account either in his own country or in any other country. These discoveries were for the most part made while he was a comparatively young man—made, let me tell the younger members of my audience, at the happy time of life between twenty and thirty, when the inventive energies are freshest, and at which I hope many of you and your successors will add to the store of our know-

ledge—and Newton lived to a very advanced age. Still the fact was, as I have broadly stated it, that his inventions had no important effect on the industries of the world.

Now, compare with the career of Newton the career of two of the greatest men of science we have seen in our time, Pasteur and Lord Kelvin—two of the greatest names in science—I was going to say in the science of all time, but certainly in the science of the last half of the nineteenth century. Almost every discovery of these two great men found its immediate echo in some practical advantage to the industries of the world. It would be mere impertinence on my part before such an audience to deal with these matters in detail, but the fact is familiar to almost everybody, and the extraordinary additions which both these great men have made in their different spheres to our theoretical knowledge have had an application of incalculable value either in the department of commercial production and navigation or in that of medicine and therapeutics. Can you have a more instructive contrast than that I have endeavoured to lay before you, between the immediate results of the scientific career of Newton and those of two of the greatest of his successors?

On what does the difference depend? On this, that theoretical knowledge and practical production have each so advanced, and come close together, are so intertwined, that nothing can happen in one branch that is not echoed in another branch, that practice and theory are simply the different sides of the same shield. He who advances theory knows that he advances practice, and he who advances practice may rest assured that some fruits of his labours will be found valued in theory. [1899.]

160. I have already adverted to the fact that there is a social side to the work of these Polytechnics. I rejoice that it is so. Mere lectures, however excellent, mere book-work and laboratory work, however painstaking, do not cover the whole field of education, and unless something of that life in common, which is so notable a part of our Public School and our University systems, enters into our system of education in these places, I think after all it will be but a partial and maimed system. I am glad to think that this social side has never been lost sight of by those interested in the Polytechnic movement, and that this magnificent hall in which I speak will fill a considerable function and make that social side easier and more effective. But I should think it a very disappointing result if we had to admit that even the technical and scholastic side has not its general educational effect. It would be a sad result if the modern division of labour, and the modern specialisation which is making itself so marked a peculiarity in every branch of knowledge, were absolutely to exclude the more general and excellent results which may be derived from education as a whole. I do not think myself that that specialisation need produce these results. On the contrary, so far as I understand the matter, the education given to

all ages and professions and classes educated here is one which may be, in its results, of a most broadening character. I have told you that if the highest scientific education is to do its best for industry, it must be of the most thorough kind. . . . [1899.]

161. ‘Superficiality’—we misuse the word superficial, I think, sadly misuse it. Superficiality does not depend on the amount of knowledge acquired. It is a quality rather of the learner than of the thing learned. The smallest amount of knowledge may be learnt in a manner which is thorough in the sense in which the word should be used. Knowledge of the general principle may be obtained by those who have neither the time nor the ability to master all the details of any particular branch of science; but to say that that smaller modicum of knowledge is therefore superficial, and therefore useless, is wholly to mistake what superficial knowledge consists in and what education aims at. You may know very little, and not be superficial; you may know a great deal, and be thoroughly superficial. Superficiality is a quality of yourselves, not of the knowledge you acquire. I therefore feel that even those students of this Institution who come here merely to gain such an addition to their knowledge of a special handicraft as may enable them to excel in it, may carry away something of far more importance to them than the mere acquisition of technical skill. They may carry away that broadened knowledge of the laws of nature and of the progress of science which, to my mind, is not less liberalising, not less useful to education in the highest sense of education, than the most accurate knowledge of the grammar of our language or the works of an ancient civilisation. I make no attack, I need hardly say, on literary education, but I cannot admit that scientific education—even if that scientific education be humble in its amount, if it be stopped comparatively early in the career of learners—I cannot admit that that is not capable of producing as beneficial educational effects on the taught as any system of education that the ingenuity of the world has yet succeeded in devising. . . . [1899.]

162. I feel it the more incumbent upon me to urge upon you the claims and the glories of science pursued for itself from the fact that they cannot directly appeal to the general interest of the mass of mankind. We ought not to wonder, we ought not to criticise, and we ought not to be surprised that, among the great number of persons deeply interested and astonished at, for example, anything so interesting and sensational as wireless telegraphy, few remember the inventions which have made that telegraphy possible; they neither know of nor take interest in the investigations of a Maxwell or the experiments of a Hertz, which, after all, are at the base of the whole thing, without which any such discovery as wireless telegraphy would not have been possible, but who, as discoverers, had fame and

recognition among scientific men capable of understanding their work, yet who have not, perhaps, even now that world-wide reputation, that currency in the mouths of men, which fall to inventors much less than themselves who have probably built their work on the foundations laid for them by others. Yet in my opinion it is the bounden duty of every great place of University education to keep before it not merely the immediately practical needs of technical or other education, but never to permit the ideal of University investigation to be for one moment clouded in their eyes, or to lose interest, or cease to be the object of worthy effort and endeavour. [1900.]

163. Men of science themselves are not always in a position to give that pecuniary aid necessary to establish the modern laboratory and to equip it with modern appliances; and they are right to call upon all those who take any interest in their subjects to aid them with that pecuniary assistance which in some other countries—many other countries—is extended to them by the Government, but which in this country, rightly or wrongly, by an almost immemorial tradition has been left chiefly to the energy of private enterprise. . . . I am not going to discuss—it would be almost impertinent of me even to touch upon—the enormous interests bound up with the successful prosecution of these two great branches of research—bacteriology and physiology; but I may, perhaps, remind you of the enormous practical importance to us, of all people in the world, of some of the more recent researches in bacteriology. Bacteria are a very humble class of organisms, very unjustly abused, as far as I can discover, by ordinary public opinion, in which they suffer, as other classes suffer, by having among them a certain number of black sheep; but for the most part they are not only innocent, but most useful allies to industry, and almost necessary co-operators in some of those great functions which have to be discharged if the health of great cities is to be maintained. But, apart from that, no doubt our chief interest in them lies in the pathogenic members of the group, and we, of all people in the world, are especially interested in treating of those forms of tropical disease which they have produced, since we are engaged in maintaining a number of our population in countries where the diseases born of these bacteria are the greatest scourges. It is, perhaps, to a distinguished professor of King's College more than to any other man in this country that we owe some of the most useful discoveries in these matters. As the last speaker called attention to Mr. Chamberlain's great work in drawing together the bonds of Empire and knitting in closer unity the various elements that make up that Empire, so I may be permitted, in the wholly different subject with which I have to deal to-night, to remind you that he, as Secretary of the Colonies, has done his best to encourage these bacteriological investigations of which I, at all events, entertain such great hopes—that science will soon be able to combat, by its discoveries, the inherent difficulties which have hitherto so greatly militated against Europeans in the tropical climates of the world. . . . [1900.]

164. I am strongly convinced that not only is the necessity of a thorough scientific training great at the present moment, but that the necessity is one which grows with every new discovery. As I have pointed out on previous occasions and to other audiences, there was a time when in reality theoretical scientific knowledge was wholly divorced from manufactures or any form of practical industry. That state of things has long passed away; and now the alliance between the most abstruse scientific investigations and the general manufacturing output of the country is becoming closer and closer. What was yesterday the curiosity of the laboratory will to-morrow be manufactured in the gross and exported from this country, or from other countries, to every quarter of the globe. And no mere surface knowledge, no mere acquaintance with the methods in fashion at a particular moment, can possibly replace that knowledge of principle which lies at the very root of all these discoveries, and which must be possessed by those who are to attain the greatest success, either as the guides and leaders of manufacturing industry or as the inventors who are to increase the sum of human happiness and health by the work of their brains. Therefore, I rejoice whenever I hear that at any institution like this the scientific training is in its kind and in its degree complete and thorough; for it is only complete and thorough scientific training—one which starts from the great principles of chemistry and physics, and so forth—which can possibly be an adequate foundation of any useful superstructure. . . . [1901.]

165. My point is that mere endowment of Universities will not, I think, add greatly to the output of original work of the first quality.

What, then, will it do? It will do, or may help to do, what is, perhaps, now more important. It will provide an education which will render fit for industrial work all persons who, without University education, would be very ill-equipped indeed. I concur with all the speakers to-day that there is a great need—a great financial need—both in the new and the old Universities for help towards this object. But I would beg to point out that there is even a greater necessity than a well-equipped University—that is, that capitalists should be prepared to realise what we realise in this room—the necessity of giving employment to those whom these Universities are to turn out. . . . One other thing we want, and that, I think, is the creation of positions which will enable a man who has exceptional gifts of originality in science to devote his life to the subjects of his predilection so as not to be driven to another kind of life in which he will not be able to render the full service of which he is capable to his country. In Germany certainly—I am not sure about the United States—such positions exist to a far greater extent than in this country. In the main they must be attached to the Universities. I cannot conceive any more admirable use of any funds which the Universities can command than the increase of the number of such positions—not making them worth the £5000 to £8000 a year which

may be desired by the German professor referred to by one of the earlier speakers, but positions which may well content one whose ambition is the highest of all ambitions—to add to the knowledge of mankind. [1904.]

166. There is probably no more serious waste in the world than the waste of brains, of intellect, of originality of scientific imagination, which might be used to further the knowledge of mankind—a knowledge which mankind is ever striving to attain of the history of the world in which it lives, and of its own history as a race—there is no greater waste than that which does not select those capable of carrying out investigations of this sort, and give them the opportunity of doing so.

In my judgment, competitive examinations are literally no test at all of a man's faculty for original research. What you want in original research is something much more and much higher and much rarer than a mere capacity for absorbing knowledge and reproducing it rapidly and effectively at the moment when the competitive examination arrives. What is required is some spark of the divine genius and invention, which shows itself in many ways, but which is, after all, the great element to which we must look for the progress of our race and the improvement of our civilisation. There is no apparatus, no machinery that I know of in existence in these islands, comparable to that which Mr. Carnegie and the Executive Committee have provided under this Trust for carrying out that object. What is it you want to do? You want to catch a man immediately after he has gone through his academic course, before he has become absorbed in professional life, at the moment when ideas spring most easily to the mind, when originality comes most natural to the happily endowed individual. You want to catch him at that moment, and turn him on to some inquiry which he is really qualified to pursue with success. It is not an easy task to catch your man, and the number of men worth catching, remember, is not very numerous. The report speaks of a certain number of failures among those who have been selected. I was amazed that the number was not much larger. You cannot possibly avoid failures. No intuition would enable you to discover whether a man had something beyond the ambition to do good work in the region of research, or enable you to discover whether he has the capacity to do it. I think the machinery provided by the Executive Committee and the Universities has been marvellously successful in carrying out this great object. . . . [1909.]

167. Depend upon it, the whole difficulty lies in selecting your men. I suppose you may divide persons competent to do original research roughly into two classes—those who have a gift and an ambition, but not one of those very rare gifts, or one of those overmastering ambitions, which force a man into this particular career through the whole of his life. These men you must catch before they get absorbed in the professional work of teaching, of scien-

tific industries, or whatever it may be, which may very likely most usefully employ the later, and I fear the less inventive, period of human life. You have to catch them in the interval before they get absorbed in these necessary occupations of life, and extract from them all you can in the way of invention and originality. Then there is a rarer and higher class—those who seem born for research, to whom the penetration into the secrets of nature or into the secrets of history is an absorbing and overmastering passion, from which they will not be diverted or wrested except by an absolute overmastering necessity of earning their daily bread and supporting themselves and their families. To those men it is all-important, not for the sake of the men, but for the sake of the community, that they should have a chance to devote their rare talents to that great work for which God undoubtedly intended them. . . . [1909.]

Education: University.

168. Of course we all admit—everybody admits—that one main end of education is to fit the child, or the boy, or the young man, for the work which he has in life. It is to equip him for what I before described as a struggle for existence. One great authority, a friend of mine, who is a great authority in educational matters, has told us that the Scotch Universities are mainly and primarily professional Universities—Universities I mean which have for their object to fit Scottish youths for the four or five learned professions, such as the Church, medicine, law, and so forth. I admit that duty. I admit that is the first and most necessary work of the University; but we should be taking a very small, a very narrow—I had almost said a very depraved—view of education if we limited it by this, the purely utilitarian consideration.

I would lay before you two other objects, which I think everybody will admit are also, as well as the utilitarian objects, proper ends of education, but which we are, perhaps, too much in the habit, in this practical age of letters, to drop out of our sight—I mean the augmentation of knowledge and the augmentation of enjoyment. I mean the knowledge of the human race. I do not mean the knowledge of the individual. The augmentation of knowledge in this sense, adding to the knowledge which the human race have of the world in which they live, is of course the work of the Universities, and of Universities alone, among educational establishments. This is not work which obviously ought to be carried out, or attempted to be carried out, by primary or secondary schools, but it is a rule which ought to be carried out by the Universities. No University can be considered in truly healthy spirit unless it carries out that which in certain respects is most imperfectly carried out in England, and rather imperfectly carried out in Scotland. [1886.]

169. The reference made to one of my brothers cannot but bring home to my mind the fact that he was one of the pioneers, one of the most distinguished representatives of the great extension of that interest in scientific studies characteristic of modern university life. In scientific matters, I humbly watch from afar, but, I can assure you, with an unabated and unbroken interest. The hours that I am able to give to such studies are some of the happiest that I spend. And I always wonder that so many people who boast, and rightly boast, that they have absorbed so much of what is

best in modern culture deliberately deprive themselves, by their indifference to or their ignorance of scientific matters, of a pleasure which, if they once experienced, they would never consent to be without. . . . [1891.]

170. I am perfectly certain that any great centre of academic education which ignored philosophy as an essential branch of its studies would thereby condemn and stultify itself. Industrial work unbalanced by literary work, literary and industrial work unbalanced by speculative work, depend upon it, are unfit to form the mental sustenance and substance of academic training. If you mean to minister, not to the material wants, not to the practical improvement alone of the great populations in which your duties are cast, I am sure that you will never forget, what you certainly have not forgotten up to the present time, that we do not live by bread alone, but that literature, and the imagination which literature embodies, and speculation with regard to the world in which we live, in which our lot is cast, have always been, and must always be so long as the world exists, the main subject of interest to educated men ; and it is because I think a university like this will raise the ideal of human life and of human study in one of the busiest, in one of the most intelligent, and in one of the most important sections of our great English community that I and others are looking to the progress you annually make in your great work with the greatest interest and with the greatest satisfaction. . . . [1891.]

171. But I think there is another point of view, and an even higher point of view from which these athletic exercises may be recommended to your favourable attention. For what does a University exist ? It exists largely, no doubt, to foster that disinterested love of knowledge, which is one of the highest of all gifts. It exists, no doubt, to give that professional training which is an absolute necessity in any modern civilised community. These great objects may no doubt be carried out without any elaborate equipment for athletic exercises, but I do not think that the duties of a modern University end there. A University, if I may speak from my own experience, and say what I believe to be the universal experience of all who have had the advantage of a University training—a University gives a man all through his life the sense that he belongs to a great community in which he spent his youth, which indeed he has left, but to which he still belongs, whose members are not merely the students congregated for the time being within the walls where they are pursuing their intellectual training, but are scattered throughout the world ; but, though scattered, have never lost the sense that they still belong to the great University which gave them their education. That feeling—not the least valuable possession which a man carries away with him from a University life—that feeling may be fostered—is fostered, no doubt, by a community of

education—by attending the same lectures, by passing the same examinations ; but no influence fosters it more surely and more effectually than that feeling of common life which the modern athletic sports, as they have been developed in modern places of learning, give to all those who take an interest in such matters, whether as performers or as spectators.

[1896.]

172. I believe that the educational value of a worthy setting of a great University is not to be despised. Traditions cling round our buildings. They become part and parcel, as it were, of the fabric in which the studies take place. They are intimately associated with the recollections of the students after they have left the place of their education. They form part of that most valuable result of academic training—the love with which those who have been academically trained look back to the freshest, the brightest, and the most plastic period of their lives. . . . If history teaches us anything about the conditions of University life, it is that a University, once founded, is possessed of a wonderful, persistent vitality. Political revolutions, military revolutions, theological revolutions pass over it, and leave it still what it was before—a great centre of enlightenment, a great source of knowledge and of education. Universities have not survived those revolutions only, but they have even, though sometimes with difficulty, shown themselves capable of rapidly modifying themselves to suit the advance in knowledge. This danger, and all other dangers have been survived by almost every one of the old Universities of Europe, and I think we may, therefore, without undue confidence anticipate that the University of Edinburgh will for many ages to come be all it has been in the past to Edinburgh, to Scotland, and to the world. . . . [1897.]

173. The time is not very far back when the idea was prevalent that, after all, a University was little more than an examination machine—a machine for stamping a certain number of students with a hall-mark indicating that they had satisfied a certain number of examiners, that they possessed a certain amount of knowledge in a certain number of subjects. And I am not sure that a distinguished Edinburgh student and a distinguished politician, Lord Brougham, mentioned by Lord Rosebery in his speech, was not as responsible for that idea (which I think is profoundly a mistaken idea) as any other person who has dealt largely with matters of education. But that idea, after all, belongs to the past, and everybody who realises how the University machinery may do the work of higher education in the country has long recognised that a University to be at its best must not be an examining University, merely or principally—that, indeed, it might not be an examining University at all,—but that what is wanted is for it to be a teaching University. . . . [1898.]

174. The value of a University for educational purposes lies not principally in its examination, not even wholly in its teaching, however admirable that teaching may be: it lies, and must lie, in the collision of minds between student and student. We learn at all times of life, but perhaps most when we are young, as much from our contemporaries as from anybody else, and when we are young we learn from our contemporaries that which no professor, however eminent, can teach us. Therefore it is that while I admire the lives—admirable beyond any power of mine to express my admiration—the lives of those solitary students who, under great difficulties, come up to Edinburgh or some other University, and without intercourse with their fellows, doggedly and perseveringly pursue their studies—very often under most serious pressure of home difficulties—their course, however admirable, is not the course which can give them to the fullest those great advantages which are possessed by those whose lot is more happily cast than theirs. . . . [1898.]

175. What I say of these athletic associations, of those athletic pursuits, I say with even greater confidence of such societies as those who in their collective capacity have just elected Lord Rosebery their chairman; for those societies, after all, have not only all the advantages which I have just enumerated as regards the athletic societies, but they are deliberately founded upon an intellectual basis. They give an opportunity such as nothing else can give for that interchange of ideas between men at the age when new ideas come in with an almost overwhelming rush, when the mind is fresh for new impressions, when new theories, some of them perhaps very absurd, new schemes, new views, all crowd upon the intellectual view and come forward to be judged and weighed by those youthful judges. That discussion of such matters between equals on equal terms is of as much value, I believe, to the students of a University as the most learned discourses of the most learned teachers; and it is because I hold that view strongly and earnestly, and because I think associations are specially required in a University framed on the lines of our Scottish Universities, that I rejoice to think that, as this meeting shows, the Associated Societies never were in a more flourishing condition than they are now. [1898.]

176. I hope that in the Universities of the future every great teacher will attract to himself from other Universities students who may catch his spirit—young men who may be guided by him in the paths of scientific fame; men who may come to him from north or from south; and who, whether they come from the narrow bounds of this island or from the furthest verge of the Empire, may feel that they have always open to

them the best that the Empire can afford, and that within the Empire they can find some man of original genius and great teaching gifts who may spread the light of knowledge and further the cause of research. I have said that they were to find this—I have suggested, at all events, that they should find this—within the limits of the Empire. I hope that in putting it that way I have not spoken any treason against the universality of learning or the cosmopolitan character of science. I quite agree that the discoveries made in one University or by one investigator are at once the common property of the world ; and we all rejoice that it is so. No jealous tariffs stand between the free communication of ideas. And surely we may be happy that that is the fact. And yet, though knowledge is cosmopolitan, though science knows no country and is moved by no passion—not even the noblest passion of patriotism—still I do think that in the methods and machinery of imparting knowledge, as there always has been in modern times, so there may still continue to be some national differentiation in the character of our Universities, something in our great centres of knowledge which reflects the national character and suits the individual feeling ; and that an English-speaking student and a citizen of the Empire, from whatever part of the world he may hail, ought to find something equally suited to him as a student, and more congenial to him as a man, in some University within the ample bounds of the Empire. [1903.]

177. Perhaps there are some who may be disposed to say ‘Where is now the austere severity which used to characterise our Scottish Universities?’ Are we and our students going to sink into a Sybaritic luxury? Do we, indeed, require that for the needs of the flesh there should be this costly expenditure both of money and of organising effort? If there are critics who are disposed to take that attitude, in my judgment they take but a very superficial view of the real function which a Union such as that which has long flourished in this University, and is now going to flourish with ever-increasing utility in the future—they take, I say, a narrow view of the uses, the purposes, and the benefits which such an institution as that is calculated to confer. You cannot estimate the value in academic life of such an institution as the Union merely by counting up the number of luncheons, the reading-room accommodation, and so forth, and by saying so much material comfort, even luxury, has been added to the life of the University students. We must look deeper than that ; and for my own part there is nothing of which I am more clearly convinced than that no University can be described as properly equipped which merely consists of an adequate professoriate, adequate lecture-rooms, and adequate scientific apparatus, which only satisfy the needs, exacting though they are, of modern education. Something more than that is required if that University is to do all that it is capable of doing for the education of the young men of this

country ; and that something is provided by the Union. I know, speaking from my own experience—now rather an old experience—it is our contemporaries which make our most useful critics ; it is even our contemporaries who make our most instructive teachers ; and a University life which consists only of the relation between the teachers and the taught, between Professors and students, is but half a University life. The other half consists of the intercourse between the students themselves, the day-to-day common life, the day-to-day interchange of ideas, of friendships, of commentary upon men and things, and of the great problems which the opening world naturally suggests to the young—the University which is deficient in that is, I say, half a University, and no mere scholastic equipment can satisfy the void which is thus left. That void is amply, indeed splendidly, filled by the institution whose new birth, or whose great increase at all events, we are here to celebrate. . . . [1906.]

178. Let us rejoice in common that there is one branch of University work, of growing interest and importance, daily receiving more recognition from all that is best in the intellectual life of the country—I mean the post-graduate course. There the slavery of examinations is a thing of the past ; the intellectual servitude in which the pupil has hitherto been is a thing he may put on one side ; and he is in the happy position of being able to interrogate nature and to study history with the view of carrying out his own line of investigations and research, instead of being in a perpetual subservience to the idea whether such-and-such a subject is worth getting up for examination purposes, whether he may not have omitted to read with sufficient attention something which to him is perfectly useless, perfectly barren, perfectly uninteresting, but on which some question may be asked by a too curious examiner. He is in the position of having his teacher as his fellow-worker, of having a man at whose feet he has come to sit. . . . That is the proper position from which the most advantage can be extracted from the concentration of intellectual life at one of our great Universities, and it is the post-graduate course which I hope to see rapidly and effectively developed in all the Universities of this country and of the Colonies.

And let me observe that it is in connection with the post-graduate course that there can be a kind of co-operation between us and the more distant parts of the Empire, which is impossible with regard to the earlier and lower stages of University culture. In the primary and secondary schools of a country evidently only the children or young men of the district within reach can attend ; and no co-operation with other countries or with the Colonies is possible except after mutual consultation, after consideration of the problems common to education in all parts of the world, after exchange of information which I hope will be one of the outcomes of this conference. But when you leave the lower stages of education, and when

you come to the post-graduate course, you get an intercommunication between different parts of the Empire which is closer and which may be more fruitful; for it is not merely the communication of ideas, it is not merely a central bureau of information, invaluable as I believe such a bureau would be, it is the actual interchange of students. If we can so arrange the post-graduate course of our Universities that it will be thought a normal and natural thing for any man who has the talent and the time to devote his life to investigation, first, to get his education at one of the Universities of his own country, and then to go and conclude that education in a post-graduate course in one of our Colonies, how great will be the advantage, not merely to the student, but to the communities which will be brought together by a tie which may unite us all in a common interest in these higher subjects.

I therefore think that, though at first sight the subject of examinations and the allied subject of University training free from examinations may seem somewhat alien to the topic of a closer communication between Great Britain and other parts of the Empire in the matter of education, they are, in fact, closely allied—they are topics which naturally lead one into the other. And I earnestly hope that one of the outcomes of this conference, and certainly the outcome in which I take the greatest interest, will be such a development in the post-graduate system, and such a mutual arrangement between the Universities in all parts of the Empire, as shall not only stimulate post-graduate research, but shall enable and encourage that research being carried on in different parts of the Empire by members travelling from one part of the Empire to the other, and thus bringing home to us even more than it is brought home already the close community of interest, not only in things material, but in things of the highest intellect and research, which should bind together the citizens of a common Empire. . . . [1907.]

179. I believe the great advancement of mankind is to be looked for in our increasing command, our ever-increasing command, over the secrets of nature : secrets, however, which are not to be unlocked by the man who merely tries to obtain them for purposes of purely material ends, but secrets which are opened in their fullness only to him who pursues them in a disinterested spirit. Literature we can never do without. The classification of all that has been produced by the human mind in the past in the way of great imaginative literary work is a possession to which we all agree we must cling with a tenacity which nothing will unloose. But you can be perfectly stationary in society, however highly you are cultivated; and I believe that the motive power, the power which is really going to change the external circumstances of civilisation, which is going to add to the well-being of mankind, and, let me add, which is going to stimulate the imagi-

nation of all those who are interested in the Universities in which our lot is cast, that lies, after all, in science. I would rather be known as having added something to our knowledge of truth and nature than anything else I can imagine. Such fame, unfortunately, is not mine. My opportunities lie in a different direction ; but the happiest of men surely are those to whom fortune has given time, leisure, and opportunity, and above all a genius, which enables them to penetrate into the secrets of nature in such a way, that, perhaps, unknown to themselves, unknown even to the generation in which they are born, something will have been given to mankind which posterity can develop into a great practical discovery on which the felicity of millions may depend. [1908.]

180. After all, how much of the value of University education consists in the memories of those who have enjoyed it and the places where they enjoyed it. How invaluable it is to link those memories with the scenes of great architecture, beautiful surroundings, and the subtle influences which inspire youth at its most impressionable age, and which remain imprinted upon the memory of the young to their dying day and make it part of their very being. [1911.]

181. Let us see that we are as magnificent in our ideas of education as the architect of these buildings has been in planning this exterior edifice in which it is to be carried on. There are those who quite rightly attach great value, supreme value if you will, to the fact that within the walls of the University there may be given to the youth of the country opportunity which would otherwise go unused, and talents elicited which would otherwise lie fallow. Do not let us narrow down our ideas of University education to the possibility of a certain number of intelligent youths passing a certain number of difficult examinations. That is good, that is necessary ; but that is not all, nor is it nearly all, that a great University should have in view. I myself hold the view that in the question of education, apart from the mere examinations, the youths educate each other almost as effectively, and in some respects more effectively, than the education they receive from the Professors, and each one of us who has had the good fortune to be a member of a University, when he looks back upon his collegiate career, must realise that what education he received in the lecture rooms does not always suffice.

Beyond the function of educating the youth there is, in my judgment, another function not less important which every University should aim at, and which, unless it aims at, it will not accomplish,—the function on which I have already dwelt—that higher function of making men feel themselves the custodians of all that is highest in our civilisation, all that most especially requires to be preserved, cherished, cultivated, not least perhaps because we live in a democratic age. [1911.]

182. The Conference this afternoon differs in one important respect from any of the others which have been held or it is proposed to hold. The difference consists in this—that this afternoon, at all events in the earlier part of our proceedings, we are dealing with a problem not common to all the fifty-three universities represented at this great Imperial Conference. We are dealing with only one group of problems connected with one group of universities: I mean those universities which have their seat in the East, and were intended to minister to the wants of our Eastern fellow-countrymen. The nature of the difficulty with which it is proposed to deal this afternoon, would, I think, be apparent to anyone who puts aside our current form of speech, and remembers, what every one of us knows, that education is something much more than intellectual training, is more than a mere acquisition of a certain amount of knowledge in a form either useful to the conduct of life or useful to the passing of examinations. All of us know, of course,—it is mere common-place, though sometimes forgotten—that education deals not merely with the imparting of knowledge on the one side or the acquisition of knowledge on the other, but also with the training of the whole man. We are allowed to forget this with comparative impunity in Western universities, because, in fact, the general training of the young is only in part carried out by the official teacher. All of us who have been either at school or the university know well enough that whatever might have been done for us in those two forms of education no insignificant part—I would say the more important part—of our training was due to the collision of minds between the boys at school or between the undergraduates at the university.

We do not have it brought home to us here with the same insistence as it is brought home to teachers in Oriental Universities, that there is and must be a collision, not an irreconcilable collision, between the growth of scientific knowledge in all its branches and the traditions, beliefs, and customs, which, after all, are the great moulding forces of social man. In the West the changes of knowledge and the changes of traditions have gone on by relatively small degrees. There has been in every case mutual adjustment, and although nobody can be unconscious of the difficulties of Western teaching, due to the necessity of keeping up that adjustment, nobody is likely to underrate those difficulties in the East. Our difficulties were incomparably smaller, hardly to be mentioned with those which necessarily come upon us when you bring in, upon a society unprepared by the long training we have gone through generation after generation, the full stress and weight of modern scientific, critical, and industrial knowledge. I do not think anybody, whatever his views on education at large, or the function which spiritual ideals and ancient customs have upon training, is likely to underrate the violence of the effect which this sudden contrast must produce upon an ancient and civilised community. This modern knowledge, remember, is not a thing that can be ignored or neglected by the East if it comes to them with all the enormous prestige which naturally results

from great material success. Scientific knowledge, and growing conception of the nature and character of the world in which we live, is no mere speculation: it does not come armed with the prestige proper to mere speculation; it comes armed with that perhaps more vulgar, more impressive, prestige, due to the fact that from it have been born so many of the arts of life, so many of the things that have made races powerful, wealthy and prosperous. How, then, are you going to diminish the shock which this sudden invasion of a wholly alien learning must have upon the cultured society of the East? A catastrophic change in the environment of an organism is apt to inflict great injury upon the organism—even, perhaps, to destroy it altogether. We all know, on the other hand, that if time be given to the organism, if the change, however great, be gradual, if the organism be given the opportunity of making its own changes in correspondence with that changed environment, there is no reason why it should not flourish as greatly in the new as in the old surroundings. There we are, forced to be catastrophic. It is impossible to graft by a gradual process in the East what *we* have got to by a gradual process, but which, having been matured in the West, is suddenly carried, full-fledged, unchanged, and planted down, as it were, in those new surroundings.

I have presented the problem to you as it presents itself to me. I do not pretend to suggest a solution. The Papers may not cover the whole ground, but they will, at all events, suggest certain methods of mitigating the dangers and difficulties inevitably incident to what in the main will, I hope, prove to be a great and beneficent revolution, but which, in its inception and some of its incidental characteristics, is not without danger to some of the best and higher interests of the great Oriental race with which we are attempting to deal this afternoon. . . . [1912.]

Education : Examinations.

183. One other form of enjoyment there is which must necessarily be the portion of a comparatively small—not a very small—portion of those to whom the benefits of the educational system are extended. I mean the disinterested enjoyment of the acquisition of knowledge. In order that this enjoyment may be obtained at its best, let us watch with the most jealous care any encroachment of the system of competitive examination upon our educational life. It is not grateful perhaps in a Minister of the Crown to speak disrespectfully of competitive examination, which relieves me of so much of the intolerable burden of patronage, but though as a Minister of the Crown I am very grateful to competitive examinations, I consider them an abomination educationally, and if in some respects a necessary one, we must keep them within the very smallest possible limits. For recollect, competitive examinations injure not merely the pupil, they injure the teacher. The man who has to teach the class for competitive examinations is no longer able to teach a subject as the subject presents itself to him, but has to teach it as he thinks the subject will present itself to the examiner; and the injury to the pupil is especially bad, because those who suffer most are the ablest pupils. It is the one who is going to succeed, and who does succeed, in the competitive examinations who suffers most from the effects produced by the examination. His whole idea of learning is lowered. Its dignity vanishes. The whole bloom and the whole charm are rudely brushed away from knowledge. He looks on learning no longer as the greatest delight and honour in his life, but looks at it as the means by which he may earn marks; and love is not more ruined by being associated with avarice than is learning by being associated with mark-getting. . . . [1886.]

184. The habit of always requiring some reward for knowledge beyond the knowledge itself, be that reward some material prize or be it what is vaguely called self-improvement, is one with which I confess I have little sympathy, fostered though it is by the whole scheme of our modern education. Do not suppose that I desire the impossible. I would not if I could destroy the examination system. But there are times, I confess, when I feel tempted somewhat to vary the prayer of the poet, and to ask whether Heaven has not reserved in pity to this much educating generation some

peaceful desert of literature as yet unclaimed by the crammer or the coach, where it might be possible for the student to wander, even perhaps to stray, at his own pleasure, without finding every beauty labelled, every difficulty engineered, every nook surveyed, and a professional cicerone standing at every corner to guide each succeeding traveller along the same well-worn round. If such a wish were granted I would further ask that the domain of knowledge thus 'neutralised' should be the literature of our own country. I grant to the full that the systematic study of *some* literature must be a principal element in the education of youth. But why should that literature be our own? Why should we brush off the bloom and freshness from the works to which Englishmen and Scotchmen most naturally turn for refreshment, namely, those written in their own language? Why should we associate them with the memory of hours spent in weary study; in the effort to remember for purposes of examination what no human being would wish to remember for any other; in the struggle to learn something, not because the learner desires to know it, but because he desires some one else to know that he knows it? This is the dark side of the examination system—a system necessary and therefore excellent, but one which does, through the very efficiency and thoroughness of the drill by which it imparts knowledge, to some extent impair the most delicate pleasures by which the acquisition of knowledge should be attended.

[1887.]

185. I do not wish to overstate the case against examinations. I dislike them so heartily that I am always in danger of doing so—a danger I endeavour to guard myself against. I admit them to be necessities, but though they are necessary, they are in my opinion necessary evils—evils which, by no possibility, by no skill on the part of examiners, by no dexterity on the part of those responsible for University organisation, can be wholly removed. The man whose whole reading or whole University life is directed towards reading for an examination is, in theological language, under the law, and not under grace. That an examination may be a good test of intellectual eminence I cannot deny, when I remember the number of men who in after life have been in the very first rank of scientific and philosophical investigators, or in the very front rank of men of letters, and who have also distinguished themselves in examinations. But while they were reading for examinations I maintain that their minds were in a thoroughly unnatural and artificial condition. They are occupied in considering not what is the road to truth, not what is the best method of advancing the special study in which they are engaged, not even how they may best educate their own faculties so as in their turn to advance the torch of knowledge and increase the science of the world. Not at all. They are occupied in amassing a large amount no doubt of accurate knowledge on an immense variety of subjects, keeping it altogether in their head

at the same time, ready for immediate use—the last thing a practical man ever does if he can avoid it. The wise man puts out of his head that which is not necessary for his immediate purpose. He focuses his mind on the work immediately before him, and though no doubt he may see to the right or to the left those collateral subjects which have a bearing on the main question which interests him, he certainly is never in the condition of that unhappy victim of examinations, who is going over in his head before entering the fatal room all the various points in different problems which it is necessary to have at his finger-ends if he is to satisfy the gentlemen who are examining him. . . . [1898.]

186. I believe it is largely due, not to the maleficent influence of any Government department or any municipality, but to the inherent ignorance of public opinion, that we have got to overrate, in the preposterous manner in which we do overrate, the value and importance of competition, of examinations, in our Universities. I think the President of King's College made a brief reference to that evil, and I am quite sure it is an evil which cannot be overrated. I do not mean to say that you can dispense with examinations. I venture on no such dogmatic utterance; but I do think it of importance that we should have present to our minds the inevitable evils which examinations carry in their train, or the system of competitive examinations as it has been developed of recent years in our great Universities. The truth is that a book which is read for examination purposes is a book which has been read wrongly. Every student ought to read a book, not to answer the questions of somebody else, but to answer his own questions. The modern plan, under which it would almost seem as if the highest work of our Universities consisted in a perennial contest between the examiner on the one side, and the coach on the other, over the passive body of the examinee, is really a dereliction and a falling away from all that is highest in the idea of study and investigation. I do not know how far these evils can be eliminated from our system so far as the pre-graduate course is concerned. I have to leave the solution of that problem to those who are directly responsible for the government of our Universities. . . . [1907.]

Empire.

[See also "THE PRESS".]

187. The British Empire consists by no means of the simple organism of the United Kingdom, but it has now subordinate to it communities having popular institutions as free as ours. It has subordinate to it almost every form of government which the mind of man can conceive. We manage some of our dependencies by governors, some by dependent Princes, and some by chartered companies; and I think it would be scarcely possible to think of a form of government, which is unexampled in our Dominions, for the use or the abuse of which we are more or less primarily responsible. I believe if you told to the theoretical politician of a hundred years ago that an Empire of this kind could be effectually, justly, and humanely governed, above all could be governed by a democracy in a country in which Parliamentary government and government by party was the rule, in which one Administration succeeded another at no very long interval—if you told him that in spite of the difficulties, the inherent difficulties of that form of government, nevertheless it had been done, he would have thought that you were talking to him in a dream. We have done it, and must continue to do it. Do not suppose that it is a light task, or that the burden of it from any point of view, Imperial or moral, is a light one. The burden is a heavy one; and we shall not bear it adequately unless we realise how heavy it is. But my hope for the future is largely founded on the fact that the British Empire, whatever else it is, is not a selfish Empire. If we have acquired sovereignty over huge tracts of the earth's surface, at all events we rule those tracts in no selfish or narrow spirit. We do not desire to exclude other nations from the full benefits that may be derived from British freedom, from British powers of administration, and from British traditions of government. On the contrary, though our colonies are ours indeed legally and by affection, they are not limited to the enterprise of citizens of this country. They are open to the world; and the world, if it pleases, may take advantage of them. . . . [1896.]

188. I never felt the desire to supplement such information as can be obtained from books by that direct vision which, brief as it may be, does clothe in outline and in colour the bare ideas which printed books can alone

give—I never felt that desire more strongly than after listening to His Royal Highness's vivid and picturesque account of his own experiences in the East. It is hard for us living in this remote island to picture in living colours that vast territory for which we have become responsible, with its infinite variety of races and religions, with its immemorial philosophy, with those attributes of ancient civilisation which so sharply divide it from Western nations. It is hard for us, brought up in a different atmosphere, fully to realise the difference which divides us and to overstep that difference with a full and living sympathy; and yet that, my lords and gentlemen, is the problem which, after all, is set us in this country. I do not think that we are wholly unworthy of the task. I think, if I may say so, that in no respect do we show ourselves more worthy of our great responsibilities in the East, and more competent to deal with Parliamentary institutions, than when we deliberately and firmly refuse to allow the questions of the Indian Empire to become matter of Parliamentary debate between contending parties in this country. If we have not full knowledge, we have, at all events, a strong suspicion of our own ignorance, and that is the beginning of political wisdom when you are dealing with great empires; and I should regard as the greatest of all misfortunes that could happen to this Empire that the details, even the great and important details, of Indian administration should be habitually dealt with by House of Commons orators or become the common theme of platform debate. No symptoms of such a catastrophe have as yet shown themselves, and I am confident that the wisdom of our countrymen, recognising the immense and the strange responsibility which the events of one hundred and fifty years have thrown upon our shoulders, will never render even more difficult than it is the difficult task of governing and administering our Indian Empire. . . .

It is not by things that you can measure or count that the greatness or the progress of communities can be estimated. I have no materials for dealing with those moral problems, those remoter moral problems, which are, after all, the great problems that have to be considered—I should get out of my depth were I to attempt any estimate, I should be dealing with seas which no plummet that I can wield is able to sound—but that there is some great change going on by the constant contact of East and West, and that on the whole that contact is likely to be beneficial both to East and to West—that is a faith which I firmly hold. And there is one point connected with the feelings and the sentiments of our fellow-subjects in India rather than with their mere material conditions on which I, at all events, feel a full assurance. If a great Empire is to be kept together, sentiment and loyalty must enter into the emotions by which its component parts are animated, and I am assured in my own mind that when you are dealing with, possibly, any population, certainly when you are dealing with a great Oriental population, it is vain to hope that this sentiment will crystallise round abstract institutions of which they have no immediate or personal experience. It will not crystallise round

Parliaments or Governments or Councils. It will find its true goal, its true end in the personal affection and the personal loyalty to an individual whom perhaps they have never seen or perhaps have only seen for once, who they understand, while a man like themselves, is a great Sovereign and a great Emperor ; that is the centre round which, and round which alone, we can expect the feelings of loyalty of our Indian fellow-subjects to the great Prince who rules over so many of them will crystallise.

And it is because the visit of Their Royal Highnesses to India must have an immense effect in increasing the strength of that sentiment of loyal affection and devotion, it is because their presence in every part of India, it is because the voyage which has been just described to you in language so vivid and picturesque has brought home to our fellow-subjects something which they can feel, and something which all can understand, that I venture to suggest to you that the journey which has just been brought to so happy and to so successful a termination is a journey which has not merely given immense pleasure to Their Royal Highnesses who have undertaken it, has not merely given satisfaction to the millions who have seen them in India, but has done something real, permanent, and substantial to unite that great Dependency with the rest of the Empire of which it is the greatest part : and I venture to think that we ought to thank Their Royal Highnesses for the great Imperial work which they have so successfully performed, in bringing directly to the gaze and the hearts of our Indian fellow-subjects the personality of the family which has ruled over them ever since they became part of the British Empire, and which for generations yet to come will be the greatest bond of union between them and us. . . . [1906].

189. I have used the phrase "the problem of Empire," and perhaps you will ask me, or some might be tempted, at all events, to ask me, whether there is a problem of Empire. And the question need cause no surprise, because the British Empire, as it is at the present moment, is naturally an outgrowth of the British character and of the British Constitution. But though the British Empire is, of all political facts, one of the most natural growth, do not let us forget the kindred and the cognate truth that the British Empire is, of all political experiments, the most audacious that has ever been tried. We are what we are by the natural love of constitutional liberty which we have at home, by the fact that our children across the seas share our beliefs and our affections, copy our institutions, are partners in our liberty. But remember that though all that has grown by a natural process ; though it seems to us, accustomed to it, as if it was the most easy and familiar process in the world, as a matter of fact, Great Britain and her Colonies are at this moment making an experiment such as has never been made as yet in the history of the world, that the experiment—though, thank Heaven, there is no hitch in it as yet—is still

but half accomplished, and that, in the words of the letter which you have just heard, unless we can go forward with it we are predestined to go back. I often wonder whether the citizens of this Empire truly realise what they are doing, what they have done, what they are attempting to do, and what, please Heaven, they will fully succeed in doing. I am not going to make a historical survey on an occasion like this of the colonial efforts made by other countries in other regions and at other times; yet it may, of course, be worth while for a moment to cast our eyes back at what has been done, or has been attempted to be done, to see how great is the task, how unique is the experiment, on which we are all here engaged.

To the Greek, a colony meant something like the mother country instituted in some other region, framed on the model of the mother city, yet with no political connection with it at all. To the Roman, empire meant that the world as it was then known, the civilised world, was to be brought within the embrace, the administrative embrace, of the all-conquering city, and that from one centre was to radiate the organisation, the political organisation, by which men of different races, different religions, of widely divergent history were to be bound together under one system of laws and one administrative polity. But the Greek kept no unity, no bond of fellowship, or, at all events, no political union with his offspring, and Rome lost its very character in the process of making its empire. The most conservative of all nations, it yet saw by an inevitable process every one of its primitive institutions, the institutions of liberty under which it had grown up to be what it was, lose its significance, remain in name, but after all in name only. Compare the British Empire with those two great ancient experiments. We, like the Greek, have been founders of Colonies having institutions and liberties like our own; our children resembling, as other children do, the parents that have brought them into the world. But we have never severed our connection with those represented at this table. The Roman maintained his political connection within the furthest limits of the empire which belonged to him. But, as I have said, he ceased to be Roman in the old sense in the process, and the Rome of empire was not the Rome of the republic, and the Rome of the later empire was not the Rome of the earlier empire. Our institutions, unlike the Roman, have grown in liberty, in vigour, in the very process of building up the Empire of which we are a part. Our liberties have augmented, have become set on firmer foundations by the very process which has enabled us to establish communities as free as ourselves, yet bound to us by the ties not merely of birth, but of comradeship and of a common Empire over the whole habitable globe. This is absolutely new in the history of the world; there is no parallel to it, and the world is looking up to it to see whether we in this great and new experiment are going to lead the way, as we have so often led the way, on the path of liberty and of progress here. There have been those, there still are those, who are ready to say, 'We grant that the British Empire has well served the human race

in establishing these free self-governing communities in various parts of the world; but that function is adequately fulfilled, is exhausted, in the establishment of those communities, and why should we or why should any one mourn if, in the fullness of time, the young nations which are born to us should exercise their right of independence and sever themselves firmly from the fate and the destinies of their motherland?' I believe that such critics have been commoner in this country than they have in the Colonies. And I believe that they are fewer, far fewer, in this country now than they have ever been before. But what is the answer to their contention? Wherein would be the loss either to our political children or to ourselves if, when they were in a position to defend themselves against foreign aggression, and their own liberties were established on a solid foundation, they should part company with the Mother Country? Well, that is a question too large to discuss on such an occasion as this, but one answer to it I may be allowed to make.

I am a believer, at all events, in great empires—not, believe me, because of any vulgar desire to see so much of the map on Mercator's projection painted red, nor yet from the nobler wish, the nobler belief, that great empires on the whole make, as I think, for peace. My view goes beyond this. There is always, and there must always be, a great danger that any community, each one of which is absorbed in the distracting cares incident to human life—in the business of its family, of its parish, of its county, of its country—may lose all the great and ennobling influences which may attach, and which ought to attach, to the consciousness of citizenship in a community on whose proper conduct depends so much of the felicity and the progress of the whole civilised world. We seek for this extension of our narrow horizon in books and in literature. We read history and fiction—history which is sometimes fiction by accident, and fiction which is occasionally excellent history by intention. We read these, and we ask—we desire—that our children should read them in order to expand the narrow horizon in which each of us is born, and in which we naturally live. But life is richer of lessons than literature, facts are more instructive than books; and if we can induce the citizens of this Empire, whether they live in these two small islands or whether they belong to the great and growing communities beyond the seas—if we can induce them to feel each one that he has in his keeping some small share of responsibility which attaches to a citizen of an Empire which girdles the globe, you will do more for ennobling the instincts and widening the horizon of our race than any amount of mere book learning can do, or than any amount of devotion, however disinterested, to the affairs of a parish or a county can possibly contribute or instil into the human mind. We have, therefore, a great experiment to carry out—the experiment of retaining in one Empire communities which must each be left unhampered, untrammelled, unimpeded, to follow its own laws of destiny and development. We have to combine those and to keep them combined in one great Empire. That

is the problem of the British Empire, and do not let us conceal from ourselves that as time goes on it involves, and must involve, like everything else which is worth doing, difficulties of its own. If I am asked how I think those difficulties should be faced, how the centrifugal forces, which may not be powerful, which are not powerful, but which exist—how they are to be neutralised—then I say it cannot be done by the old method of control by this country of its children. That is abandoned, and has long been abandoned by every British statesman of every school. Neither can it be, I think, maintained by a reciprocal intervention in each other's affairs on the part of all these great self-governing communities. The connection is, and must remain, so far as paper Constitutions are concerned, a loose connection; it need not be loose, and must not be loose, so far as those bonds are concerned which cannot be put on paper, cannot be embodied in a Constitution, but which are written in the hearts of men. I have heard the British Empire compared to an alliance—a close alliance, but still an alliance of independent States. I do not agree with that parallel; I do not think that is the ideal we should look to. Mere treaties, or the substitutes for treaties, framed in order that a common end may be obtained by independent communities—these are very useful things, but they are not the bonds that are going to unite us for all time to our children beyond the seas. Again, I have heard the British Empire compared to a commercial co-operation—a partnership; but here also I think the parallel is poverty-stricken and falls far below the reality at which we should aim. We are not partners in a commercial concern in which each partner has to consider nicely whether he gets his proper share of the common profits of the firm, and who is prepared to transfer himself and his capital to some other firm if he thinks he can get better terms. That is not the way in which any member of our Empire should look upon the great body of which he is a member—that is not the mode in which he should represent himself in relation either to the Mother Country or to the Colonies.

No, the true parallel is not that of an alliance, is not that of a partnership, it is that of a family. We have to feel—and I think we do feel—that the bonds which unite us—in almost all cases bonds of blood, in all cases, without exception, bonds of common institutions and of common love of freedom—carry with them, and must more and more be made to carry with them, feelings of obligation, of mutual service, which cannot be put down in black and white, which cannot be added to by any arithmetical process, but which bind us together as the members of a united family are bound together—pleased when they can do to each other some service which differentiates them as a family from the rest of the world, anxious to do that service without too close a calculation of what they are to get by it—a family between whom there may indeed and must be business relations, but with whom, though business be business, it is yet something more. That is the ideal which we have got

to look to. We have got it in our power to have direct relations with other members of the Empire which differentiates us as a great family of nations from all the rest of the world. I do not think that ideal impossible, and, for my own part, I see no reason why it should not be permanent. I do not deny that, as time goes on, the difficulties which time always produces will have to be faced by the generations—by our generation or by those which are to come after us. I should be a poor guide to public opinion if I pretended that everything was easy and was going to be easy for all time. It is not ; but while I should be a poor guide if I made easy promises of what the future had in store for us, surely I should be lacking wholly in inspiration if the picture I drew of the future, either to myself or to you, represented it as a future in which we were struggling vainly against the forces of destiny—able, indeed, to prolong the agony, but not able and not powerful enough to secure a final victory. That is not my belief. This club is named after the century in whose early years we are each of us in our several spheres doing the best of our work for the common Empire. When the century draws to a close, when our successors of the 1900 Club are beginning to think that they may have to change their name, and the 1900 Club has to become the 20th Century Club, I believe—I not only hope, but I believe—that its members will look back upon us, its earliest and its original members, and will recall the great occasion on which in these the first years of our existence we welcomed the representatives of all parts of the British Empire. They will remember the earnest zeal which animated their predecessors in the cause of closer union between the Mother Country and her Colonies ; and, although by that time changes which no prophet can foresee will have occurred, though the balance of relative wealth and relative population among the different parts of the British Empire will have undergone strange and unknown revolutions, I yet firmly believe that they will be able to say, with even greater confidence of the British Empire as it shall then exist than might be said of it now, that it is an Empire which, on the whole, whatever mistakes it may have made (and what Empire is free from mistakes ?) is yet an Empire which makes for peace, which makes for progress, and which makes in all parts of the world for an ordered freedom. . . . [1907.]

190. I do not quarrel with those, I do not accuse them either of want of perception, want of imagination, or want of patriotism, who say that the British Empire as we know it is but a transitory arrangement ; that it resembles the ordinary family life ; that there was a time at which the protection of the Mother Country was necessary to its children in their early stages ; that that time must pass in the world of politics and history as it passes in the world of domestic life ; and that the time must come, and assuredly will come, when these great and growing communities will feel that all that could be gained from the British Empire as it used to be

understood has been gained, and that in all kindness of heart and with every sympathy each member of that great Empire had better go its own way like the adult members of a human family.

That may happen: it is possible. The worldly wise would say that it is probable; and yet I think myself that there is a higher and a better way. I dream myself other dreams and have other visions of the future which may be in store for our descendants, whether they be born on this side of the Atlantic or the other, on this side of the world or in the Antipodes. I cannot help thinking that as we have now thoroughly realised in every one of these great communities that each is to manage its own affairs—carry out its own life, make its own experiments as freely as if it were an independent political entity—as that is a truth thoroughly understood by every politician of every party in every one of these several communities—I cannot help thinking that upon that solid basis we shall build up something which the world has never yet seen, which political dreamers in the past have never yet dreamed of, a coalition of free and self-governing communities who feel that they are never more themselves, never more masters of their own fate, than when they recognise that they are parts of a greater whole, from which they can draw inspiration and strength, and to which they can give inspiration and strength; and that each lives its own life and is most itself when it feels itself in the fullest sense a self-governing entity which yet has a larger whole to look to, whose interests are not alien to it, on whom it can rest in time of trouble, from whom it can draw experience, to whom it can look, whom it can aid, and from whom it can receive aid.

That is an ideal coalition, congregation—use what phrase you like—of free self-governing communities which has never yet existed in the world, but of which we see the beginnings at the present time, and of which only our posterity will see the full fruition. It is in the light of this vision, if vision it be,—this dream, if dream it be,—that I ask you to welcome our visitors to-day. . . . [1911.]

1911. We should be greatly underrating the value of the labours of the Victoria League if we confined our gaze merely to the specific operations, the particular efforts it is making, either in the way of welcoming travellers, showing photographs, lending books, or any other of the multifarious channels through which its beneficent efforts are spread abroad. What underlies the whole movement, what gives it to my mind its real vitality, is summed up in a phrase which fell from Lady Jersey towards the end of her speech, when she said that the object of the League was to make the citizens of this Empire comprehend the Empire of which they were citizens; and, believe me, that is not so easy or so simple a task as at first it may appear to be. We are all of us by the very constitution of our being, and by the necessity of the world in which we live, absorbed in the daily round

of our own labours and our own responsibilities, seldom stretching beyond our own immediate neighbourhood, or the circle of our own business, or our own families. Too easily do men and women fall into that narrowness of sympathy which makes it impossible for them to have that full comprehension of the life and labours of others, which must lie at the root of all rational and sympathetic affection. I am often amazed at the ease, at the readiness, at the unhappy readiness with which human beings find a reason for segregating themselves from other human beings,—small differences of culture or of speech, almost the difference of whether you went to this kind of school or that kind of school, or whether your life has been a city life or a country life, a life in the wilds or a student's life, let us say in some University,—the smallest difference seems to divide men from one another, to make them incapable of understanding or comprehending the lives of the other, and by that very difference of comprehension making that solidarity of feeling, of purpose, which is the root and must be the root of any Empire like our own, difficult of full and successful achievement.

Remember that I am one of those whose faith it is that perhaps at no very distant date, but at some date, we shall be able to find more formal and constitutional bonds uniting us and the great self-governing Dominions into one whole. Though I believe in it, that has not yet come into being; and our Empire presents the unique spectacle in the history of the world of an Empire which is bound together, not by force, not even by constitutional ties, but by mutual affection. By the sense of a common origin, by the sense of a common civilisation, of a common inheritance of law, culture, freedom of institutions, by these is given the true basis of the unity of all those various self-governing fractions of the great whole. But if those are to have their full effect as unifying elements in our great society, does it not require, does it not suggest, even absolutely require, that there should be in every part of the Empire a full comprehension and sympathy with the work which is being carried on in every other part?

And think how disparate, how widely separate are the conditions under which our race is carrying on its great work. At home we constitute the most crowded of the great nations of the world; never has there been packed into so small a compass a population so large, so varied in its pursuits, but all bound together by a common tradition, common purposes, common laws. Go abroad, cross the great oceans, go to the other side of the world, and you will find our sons and our brothers, not crowded into ancient communities as we are, but fighting in the great empty spaces of the earth, reclaiming, under conditions sometimes of great hardship, sometimes of no inconsiderable peril, reclaiming great tracts of the earth for civilisation and for the Empire. Their conditions are utterly different; they live not merely in different latitudes, in different climes, under different skies; but they are carrying on the day-to-day work of life under conditions which it requires some imagination to realise for those who are

living under conditions so absolutely opposite and so violently contrasted. Now, that is an inherent difficulty in an Empire so great, so varied, and so scattered as our own. It can be got over, indeed it is got over, by that sense of common citizenship which is the very basis on which the whole fabric rests. But is it not, and must it not be, enormously aided by an institution, which, like this, turns the whole of its energy to dealing with this particular problem, and makes it its one great object to bring home to every member of the Empire, wherever he be born, wheresoever his occupations in life may have carried him, that sense that he is a part possessor of that whole Empire, with all its diversities,—a part possessor with every other citizen, with every other subject of the King?

We who live in Great Britain do not let any friend of ours coming from the self-governing Dominions doubt for one moment that we regard ourselves as in a sense sharing their labours and their triumphs over Nature. We regard ourselves as part heirs, part sharers of those youthful hopes and aspirations which are turning each of these Dominions before our eyes into a great nation; and they, on their side, they are owners whether they live in the uttermost—as Lady Jersey says—whether they live near the Arctic Circle, or whether they live in South Africa or Australia or New Zealand, or wherever they may be, though they have never perhaps set foot within these islands, though they may have been elsewhere, they are as much owners of our history, of our traditions, of all that makes this island the great exemplar of what continuity of institutions may be and may mean, as though they had been born within the sound of Bow Bells. But into that great heritage neither we here nor they there can enter unless by the help of that sympathetic imagination which it is the business, as Lady Jersey has explained to you, of this Society to stimulate, unless by sympathetic imagination they feel themselves to be the owners and the sharers of that which perhaps they have never seen, and never can see, except in imagination and through the inward vision of the mind.

There is surely no scene, no place where this train of thought can more fitly be suggested than in the hall in which I am now speaking. It was itself built, I suppose, before the discovery of America. It is the municipal centre, as it were, of a great Corporation, which is itself older than the Mother of Parliaments. It is in the middle, in the very heart of the capital of Empire, from which, and through whose organisation, a flood of British capital has streamed over to Canada, to Australia, and to the uttermost parts of the globe, carrying with it British hands and British brains and British ideas of freedom wherever it has gone. In this life, in this busy life of London, there is no man in the remotest parts of the Empire who has not a share and a right; just as we, living here jostling each other in these overcrowded thoroughfares, know that we are part heirs of the great vacant places of the world which our brothers are conquering for us and for civilisation.

These truths may seem almost in the nature of commonplaces, and yet they are commonplaces which we dare not forget, and which, if we forget, we are showing ourselves quite unworthy of being citizens of so great a State. I believe myself that the whole trend of events is bringing closer together the widely scattered members, the widely scattered elements out of which the Empire is composed. I believe that as they have one after another left the position of tutelage under which they necessarily were in their early infancy, as they are one after another developing into great States, so they are more and more feeling that those great States are parts of one yet greater whole.

I am a profound believer in the truth that local patriotism properly understood is no obstacle to a larger patriotism. There is always—human beings being what they are—there is always a danger, not I hope serious, not I believe serious, but there is always a danger that when you come to communities so great and so prosperous with such a future before them, with that future developing before the eyes of the least far-seeing and the least appreciative, that the heart, let us say, of the Australian or the Canadian may say, ‘Is not the land in which I live sufficient for me? Can a man have any happier fate than to be a citizen of such a country, building up its future and making it worthy of a population, which at no distant date will equal, perhaps may even surpass, that of the Motherland itself?’ Nobody can say that that is a mean or ignoble way of looking at the world; but surely it is the least worthy; surely there is a better way, a way which sees in the development of each part of the Empire, be that part England, or Scotland, or Ireland, on the one hand, or be it Canada, South Africa, Australia, or New Zealand on the other, which sees in that something indeed worth a man’s effort, worth the sacrifice of his life; which sees that such an effort and such sacrifice ministers not merely to the benefit of the part, but to the greatness of the whole, and which makes every citizen feel as an intimate part of his own daily life the immense greatness and the even greater variety of the effort now being carried on all over the world, which should converge, and be made to converge, to this one common end. . . . [1912.]

Eugenics.

192. I remember when I was younger that expert knowledge upon some of these great social problems was of the most optimistic character. Herbert Spencer, for example, I think I am not going too far in saying, based the whole of his social speculation upon the theory that you had only to improve one generation, and by the mere operation of heredity the next generation would be better than its predecessors; and so on into an unlimited future of social progress based on physiological improvement. Well, the more recent investigations of science, if I understand the matter rightly, have entirely discredited that theory, at all events in its broader applications. I am well aware that the matter is still in dispute, and I am not going to be so presumptuous or so foolish as to express any opinion of my own upon the subject; but I believe I am not going beyond the truth of contemporary speculation when I say that the best scientific opinion now holds that, broadly speaking, even if there be, which most of them greatly doubt, any such thing as the inheritance of acquired gifts or acquired qualities, we cannot count upon that as being worthy of estimation in dealing with the causes which are to produce the future improvement or the future deterioration of mankind. The optimism based by Herbert Spencer and others upon the older view has now, I think, in the main, to be abandoned; and I am afraid I have to add that if we consider the line of thought adopted by many of those qualified to speak upon this subject, their views, so far from being optimistic in the sense that the school of which I have just been speaking was optimistic—their views, driven to their logical conclusion, are of the most pessimistic character.

There are a large number of persons here who have devoted great study and great thought to this question of inheritance, but, so far as I am able to estimate the general trend of thought, they dwell, and dwell almost exclusively, upon the many causes which may produce deterioration of the race—nay, which in their view are producing deterioration of the race, and that rapidly—while they certainly do not give us with any clear or convinced accents any ground for thinking that there are great causes in operation which are likely to improve the physical basis on which, after all, education, environment, and good social influences have to work, and which tend, not merely to make the best of the material we have got, but tend also to make the material itself from generation to generation better in the future. I cannot find that in their view there is any great cosmic cause operating

in that direction ; I do not know whether they take too gloomy a view of the matter. Some of their speculations, indeed, although I do not pretend to have an answer to the arguments they advance, leave me somewhat doubtful, because I cannot see that experience supports them. For example, we are told, and I am afraid we are told truly, that the birth-rate is rapidly diminishing in the best class of the artisan population and in the middle classes, and, indeed, in all classes except the least fortunate class ; and they deduce from that the uncomfortable conclusion that the population of the future will be entirely drawn from those whom they plausibly describe as the least efficient members of the community. I have no answer to that, but I have a question to put about it. If we really can divide the community in the way they divide it, I am unable to understand how we have failed to have a segregation of efficiency in the past between those who are better off and those who are worse off. In other words, it seems to me there must be a cause in operation, on their theory, which would divide the efficient from the inefficient—I mean some have had gifts which made them prosperous, and they have married the daughters of those who had gifts which made them also prosperous, and, according to the theory of those to whom I have referred, they ought to have more efficient children. That has been going on for centuries. You see in history the abler men making a success of life and rising in the social scale, and you see those who follow sink in the social scale. This interchange has been going on, and we should, on this theory, expect to see those who are better equipped with everything which makes for efficiency at one end of the scale, and the least efficiently equipped at the other end, divided not merely by the accident of fortune, not merely by one man having better opportunities for education than another, but divided by an actual difference of physiological efficiency.

But I do not see any trace of that in fact. I do not see that that is going on. I admit that I cannot help looking with disquiet to this difference of birth-rate ; but the best way of dealing with it, and the quickest and most efficient would be to put the unfortunate people who have too many children into the same category of comfort which apparently in the present social condition arrests the birth-rate, and get quality that way. But quite apart from the fact that in the last thirty years this difference has made itself manifest in a manner which naturally alarms, and rightly alarms, all thinking men, there does seem to be a flaw in the reasoning which, when carried to its logical conclusion, produces circumstances which, so far as my observation upon the relative gifts of different sections of society goes, has no foundation in the actual fact and truth of things. Differences of education, of course, there are, and differences of opportunity of course there are ; but I should look with grave apprehension at all the schemes for enabling people to rise from one class to another as it is called, from one class of position to another by means of scholarships, examinations, and all the rest of it, if I thought that the result was, as it

must be on this theory, that you are going to end by having at the top of the scale people who are physiologically destined to inferiority, which certainly I do not see at the present moment.

I am not going, of course, to discuss eugenics in detail, and Heaven forbid that I should attempt to discourage what I consider one of the most important investigations which can be carried on ; but we have to be careful. And, mark you, there is a certain inconsistency between these theories of heredity and the hygiene which almost everybody I am addressing at the present moment regards as a great and fundamental necessity of a modern civilised community, because hygiene means protecting—not always, but often—those who on the strict theory of the survival of the fittest had better not live, and better not have children. Take tuberculosis merely as an example. You take the disease in early life, and you greatly diminish it. Many of the most competent experts think you will be able to extinguish the malady practically as you have extinguished typhus and leprosy. They may or may not be over-sanguine, but at all events that is the end to which they are tending. But, to take it for what it is worth—and I do not know that it is worth much—I suppose disease at this moment is the only method by which the natural selection, the destruction of the unfit, is allowed to work at all in civilised societies ; and if we do succeed, as I hope we shall, in producing a community in which there are no microbic or zymotic diseases at all, I suppose it is impossible to doubt that a certain number of generations of this society would be weaker to resist disease than the society in which we live, and *pro tanto*—remember I state this with all qualification—you would be running against that school of eugenics which, after all, is the only school of eugenics which exists, which depends for all its speculations and all its suggestions upon the doctrine of the survival of the fittest.

At the present moment disease is killing out steadily a certain number of people especially liable to the disease. The disease may be practically extinguished ; but in doing so have you considered what would happen if through some external source the disease were re-introduced to these islands as we have introduced disease into other lands. Of course, it would find its hecatomb of victims, or at any rate it would find human beings who, in the absence of medical treatment, would be far more liable than their predecessors to the attacks of that particular malady. I think that is undeniable. But who hesitates in that sense between hygiene and the improvement of the race? We must plump for hygiene. What we must go in for, irrespective of these remote speculative consequences, is for making men, women, and children—and especially the children—as well as treatment can make them ; and we have the further duty of doing all in our power as a community to encourage that research which is going to make the medicine of thirty years hence as superior to the medicine of to-day, as the medicine of to-day is to the medicine of thirty years ago. I do not want to elaborate or to dwell upon that proposition which I think will be accepted without doubt and without question by almost all

those whom I am addressing. But if I were to give from the purely external point of view the first rough division between the happy and the unhappy, I should put it at the division of health. I should say that roughly—very roughly—it corresponds with the division between the well and the ill: and if I were asked what the next rough division was I should say it was between those who suffered from destitution and those who, whatever their profession in life or their monetary position might be, do not suffer from destitution. It is there that the great division as regards worldly goods comes in.

But this is the tragedy of the situation, and those being the two great divisions, they interact one upon the other. The man who is ill becomes destitute, and to all the horrors of illness are added all the horrors of destitution, each acting and reacting upon the other. And then you have the third tragedy of the situation, namely, that when you have sickness and destitution combined, each one acting partly as cause and partly as effect, there is the further action and reaction upon family life in which the man or woman feels that his or her illness is the cause of suffering not merely to themselves but to those who are nearest and dearest to them; that their own utility is destroyed; that instead of being a support they become a burden: and to all the individual and self-centred pains of illness and destitution are added those other and still greater pains, the pains of those who feel that their own misfortunes are dragging down those who are nearest and dearest to them. Now that is the cause in which we are to-day fighting; that is the cause in which this great mass of expert knowledge is brought together; that in the main is, I take it, the fundamental problem before us, and it evidently turns in the first place upon using what medical knowledge you have to the best advantage, in making your population understand what the doctor can do for them, and in giving to the doctor adequate opportunities of doing it. And it depends, in the second place, upon that growth of knowledge, upon that increase of research, upon that spread of scientific knowledge to which, whether it be in social suffering or in industrial suffering, we must in the main look as the great lever by which all the other influences of religion and morality are to be aided. . . . [1911.]

193. This International Congress, the first, or one of the first, which has ever been held upon the subject, has in my conception of it two great tasks allotted to it. It has got to convince the public, in the first place, that the study of eugenics is one of the greatest and most pressing necessities of our age. That is the first task. It has got to awake public interest, to make the ordinary man think of the problems which are exercising the scientific mind at the present moment. It has also got to persuade him that the task which science has set itself in dealing with the eugenic problem is one of the most difficult and complex which it has ever

undertaken. And no man can do really good service in this great cause unless he not merely believes in its transcendent importance, but also in its special and extraordinary difficulty. I am one of those who base their belief in the future progress of mankind, in most departments, upon the application of scientific method to practical life. And, believe me, we are only at the beginning of that movement; we are only at the beginning of this marriage between science and practice. Science is old—even modern science is old, relatively old—but the application of science to practice is comparatively new. I hope and I believe that among these new applications of science to practice it will be seen in the future that not the least important is that application which it is the business of this international congress to further.

We have to admit that those who have given most thought to the problems which are included under the word eugenics, those who have given most thought to the way in which the hereditary qualities of the race are transmitted, are those who at this moment take the darkest view of the general effect of the complex causes which are now in operation. I hope their pessimism is excessive; but it is undoubtedly and unquestionably founded not upon sentiment, but upon the hard consideration of hard fact. And those who refuse to listen to their prophecies are bound to answer their reasoning, for the reasoning is not beyond what it is in the power of every man to weigh. It depends upon facts which it ought not to be difficult to verify; it depends upon premises whose conclusions follow almost inevitably. And those who roughly and rather contemptuously put aside all these prophecies of ill to the civilisation of the future are bound, in my opinion, to give the closest scrutiny to all these arguments before they reject them, and to say where and how, and in what particulars, they fail to support the conclusions drawn from them. Though certain broad conclusions may seem obvious, the subject itself is one of profound difficulty. I would go further, and venture to say that probably there is more difference of opinion at this moment among many scientific men with regard to certain fundamental principles lying at the root of heredity than there was, for example, in the seventies or eighties of the last century after the great Darwin's doctrines were generally accepted—as indeed they are, in their outline, part of the universal heritage of the race—but before all the more minute scientific investigations had taken place with regard to the actual method by which inherited qualities are handed on from generation to generation. Eugenics has got to deal with the fact of this disagreement, which is of scientific importance. It also suffers from another fact, which is of social and political importance—namely, that every faddist seizes hold of the eugenic problem as a machinery for furthering his own particular method of bringing the millennium upon earth.

But further, I am not sure that those who write and talk on this subject do not occasionally use language which is incorrect in itself, and which is apt to produce a certain prejudice upon the impartial public. I read, for

instance, as almost an ordinary commonplace of eugenic literature, that we are suffering at this moment from the fact that the law of natural selection is, if not in abeyance, producing less effect than it did when selection was more stringent, and that what we have got to do is, as it were, to go back to the good old day of natural selection. I do not believe that to be scientifically sound. I say nothing about its other aspects. The truth is that we are very apt to use the word 'fit' in two quite different senses. We say that the 'fit' survive. But all that that means is that those who survive are fit: they are fit because they survive, and they survive because they are fit. It really adds nothing to our knowledge of the facts. All it shows is that here is a class, or a race, or a species, which does survive and is adapted to its surroundings, and that is the only definition, from a strictly biological point of view, of what 'fit' means. But it is not all the eugenicist means. He does not mean that mere survival indicates fitness: he means something more than that. He has got ideals of what a man ought to be, of what the State ought to be, and of what society ought to be, and he means that those ideals are not being carried out because we have not yet grasped the true way of dealing with the problems involved. If you are to use language strictly, you ought never to attribute to nature any intentions whatever. You ought to say 'Certain things happen'. Everything else is metaphor, and sometimes it is misleading metaphor. For instance, those who are interested in this subject will read constantly that in certain cases the biologically fit are diminishing in number through the diminution of their birth-rate, and that the biologically unfit are increasing in number because their birth-rate is high. But according to the true doctrine of natural selection, as I conceive it, that is all wrong. The professional classes, we are told, have families so small that it is impossible for them to keep up their numbers. They are biologically unfit for that very reason. Fitness means, and can only mean from the naturalistic point of view, that you are in harmony with your surroundings, and if your numbers diminish you are not in harmony with your surroundings, for there is not that adaptation which fitness in the naturalistic sense implies. In the same way, I am told that the number of feeble-minded is greatly increasing. That can only mean, from a naturalistic point of view, that the feeble-minded are getting more adapted to their surroundings (laughter). I really am not making either a verbal quibble or an ill-timed joke. It is all-important to remember, in my opinion, that we are not going to imitate; and we do not desire to imitate natural selection, which no doubt produces wonderful things, wonderful organisms, in the way of men, but has also produced very abominable things by precisely the same process. The whole point of eugenics is that we reject the standard of mere numbers. We do not say survival is everything. We deliberately say that it is not everything; that a feeble-minded man, even though he survive, is not so good as the good professional man, even though that professional man is only one of a class that does not keep up its numbers by an adequate birth-rate.

The truth is that we ought to have the courage of our opinions, and we must regard man as he is now, from this point of view—from the point of view of genetics—as a wild animal. There may be, and there are, certain qualifications to that. I suppose there are both among barbarous and among civilised tribes marriage customs and marriage laws which have their root, I do not know whether in formulated laws of eugenics, but which at all events harmonise with what we now realise are sound laws of eugenics. Still, broadly speaking, man is a wild animal; and we have to admit that if we carry out to its logical conclusion the sort of scientific work which is being done by congresses of this sort, man must become a domesticated animal. I am aware that that is a sort of phrase which is liable to misinterpretation, but it is absolutely correct. The eugenist thinks, and must think, that he ought deliberately to consider the health, the character, and the qualities of the succeeding generations. That is characteristic of domestication; that is totally absent from animals in the wild state. And what we have to do is ultimately—not we of this generation or the next generation, or for a limited number of years, but ultimately we shall have to look at this question from an incomparably more difficult, but also more important, aspect of the very kind of questions which we have to consider when we are dealing with the race of domestic animals upon which so much of our happiness, and even our existence, actually depends. But to say that—I hope it does not seem too paradoxical or too extreme to those to whom I am speaking—shows how enormously difficult is the problem with which we have to contend.

It is not a problem of the individual, but of society. I sometimes see it stated that, after all, society is the sum of the individuals who compose it. In one sense that is true—the whole is always the sum of its parts; but in that sense it is quite an unmeaning and useless proposition. In the only sense in which it means anything it is not true; and, whether we shall ever know exactly how a complex society should be composed and how we ought to lead up to its proper composition—whether we shall ever get that degree of knowledge, I know not: but the idea that you can get a society of the most perfect kind by merely considering certain questions about the strain and ancestry, and the health, and the physical vigour of the various components of that society—that I believe is a most shallow view of a most difficult question. . . . [1912.]

Fashion.

[See also "BEAUTY, AND THE CRITICISM OF BEAUTY".]

194. Everybody is acquainted, either by observation or by personal experience, with the coercive force of fashion ; but not everybody is aware what an instructive and interesting phenomenon it presents. Consider the case of bonnets. During the same season all persons belonging, or aspiring to belong, to the same 'public,' if they wear bonnets at all, wear bonnets modelled on the same type. Why do they do this? If we were asking a similar question, not about bonnets, but about steam-engines, the answer would be plain. People tend at the same date to use the same kind of engine for the same kind of purpose because it is the best available. They change their practice when a better one is invented. But, as so used, the words 'better' and 'best' have no application to modern dress. Neither efficiency nor economy, it will at once be admitted, supplies the grounds of choice or the motives for variation.

If, again, we were asking the question about some great phase of art, we should probably be told that the general acceptance of it by a whole generation was due to some important combination of historic causes, acting alike on artist and on public. Such causes no doubt exist and have existed ; but the case of fashion proves that uniformity is not produced by them alone, since it will hardly be pretended that there is any widely diffused cause in the social environment, except the coercive operation of fashion itself, which should make the bonnets which were thought becoming in 1881 unbecoming in the year 1892.

Again, we might be told that art contains essential principles of self-development which require one productive phase to succeed another by a kind of inner necessity, and determine not merely that there shall be variation, but what that variation shall be. This also may be, and is, in a certain sense, true. But it can hardly be supposed that we can explain the fashions which prevail in any year by assuming, not merely that the fashions of the previous years

were foredoomed to change, but also that, in the nature of the case, only one change was possible, that, namely, which actually took place. Such a doctrine would be equivalent to saying that if all the bonnet-wearers were for a space deprived of any knowledge of each other's proceedings (all other things remaining the same), they would, on the resumption of their ordinary intercourse, find that they had all inclined towards much the same modification of the type of bonnet prevalent before their separation—a conclusion which seems to me, I confess, to be somewhat improbable.

It may perhaps be hazarded, as a further explanation, that this uniformity of practice is indeed a fact, and is really produced by a complex group of causes which we denominate 'fashion,' but that it is a uniformity of *practice* alone, not of *taste* or *feeling*, and has no real relation to any æsthetic problem whatever. This is a question the answer to which can be supplied, I apprehend, by observation alone; and the answer which observation enables us to give seems to me quite unambiguous. If, as is possible, my readers have but small experience in such matters themselves, let them examine the experiences of their acquaintance. They will find, if I mistake not, that by whatever means conformity to a particular pattern may have been brought about, those who conform are not, as a rule, conscious of coercion by an external and arbitrary authority. They do not act under penalty; they yield no unwilling obedience. On the contrary, their admiration for a 'well-dressed person,' *quâ* well-dressed, is at least as genuine an æsthetic approval as any they are in the habit of expressing for other forms of beauty; just as their objection to an out-worn fashion is based on a perfectly genuine æsthetic dislike. They are repelled by the unaccustomed sight, as a reader of discrimination is repelled by turgidity or false pathos. It appears to them ugly, even grotesque, and they turn from it with an aversion as disinterested, as unperturbed by personal or 'society' considerations, as if they were critics contemplating the production of some pretender in the region of Great Art.

In truth this tendency in matters æsthetic is only a particular case of a general tendency to agreement which plays an even more important part in other departments of human activity. Its operation, beneficent doubtless on the whole, may be traced through all social and political life. We owe to it in part that deep-lying likeness in tastes, in opinions, and in habits, without which cohesion among the individual units of a community would be impossible, and which constitutes the unmoved platform on which we fight out

our political battles. It is no contemptible factor among the forces by which nations are created and religions disseminated and maintained. It is the very breath of life to sects and coteries. Sometimes, no doubt, its results are ludicrous. Sometimes they are unfortunate. Sometimes merely insignificant. Under which of these heads we should class our ever-changing uniformity in dress I will not take upon me to determine. It is sufficient for my present purpose to point out that the æsthetic likings which fashion originates, however trivial, are perfectly genuine; and that to an origin similar in kind, however different in dignity and permanence, should be traced much of the characteristic quality which gives its special flavour to the higher artistic sentiments of each successive generation.

It is, of course, true that this 'tendency to agreement,' this principle of drill, cannot itself determine the objects in respect of which the agreement is to take place. It can do much to make every member of a particular 'public' like the same bonnet, or the same epic, at the same time; but it cannot determine what that bonnet or that epic is to be. A fashion, as the phrase goes, has to be 'set,' and the persons who set it manifestly do not follow it. What, then, do they follow? We note the influences that move the flock. What moves the bell-wether? . . . [1895.]

195. The unfelt pressure of general opinion produces not merely sham professions, but genuine sentiments. Fashion, whether in clothes or operas, whether in manners or in morals, is an influence which, though it may produce some hypocrites, most certainly produces many true believers. And tradition, though infinitely more than mere fashion, is fashion still. . . . [1909.]

"The Foundations of Belief,"

BEING

"Notes introductory to the Study of Theology".

[Published in 1895.]

[The majority of the passages selected from this work will be found under the headings to which they relate, namely :—

"AUTHORITY AND REASON."

"NATURALISM"—Naturalism and Ethics ; Naturalism and Æsthetics ; Naturalism and Reason ; Rationalism.

"SCIENCE ; AND SCIENCE AND THEOLOGY."

In this Section are included :—

1. Passages in which the author states his objects in writing the work.
2. Selections from the 'Introduction' to the cheap and enlarged edition (published in 1901).
3. Selections from the Chapter on "Idealism".
4. Selections from the 'Appendix' entitled "Beliefs, Formulas, and Realities".
5. The author's 'Summary' of the work ; added to the cheap and enlarged edition.]

Objects of the Author in writing the Work.

196. As its title imports, the following Essay is intended to serve as an Introduction to the Study of Theology. The word 'Introduction,' however, is ambiguous ; and in order that the reader may be as little disappointed as possible with the contents of the book, the sense in which I here use it must be first explained. Sometimes, by an Introduction to a subject is meant a brief survey of its leading principles—a first initiation, as it were, into its methods and results. For such a task, however, in the case of Theology I have no qualifications. With the growth of knowledge Theology has enlarged its borders until it has included subjects about which even the most accomplished theologian of past ages did not greatly concern himself. To the Patristic, Dogmatic, and Controversial learning which has always been required, the theologian of to-day must add knowledge at first hand of the complex historical, anti-

quarian, and critical problems presented by the Old and New Testaments, and of the vast and daily increasing literature which has grown up around them. He must have a sufficient acquaintance with the comparative history of religions; and in addition to all this, he must be competent to deal with those scientific and philosophical questions which have a more profound and permanent bearing on Theology even than the results of critical and historical scholarship.

Whether any single individual is fully competent either to acquire or successfully to manipulate so formidable an apparatus of learning, I do not know. But in any case I am very far indeed from being even among that not inconsiderable number who are qualified to put the reader in the way of profitably cultivating some portion of this vast and always increasing field of research. The following pages, therefore, scarcely claim to deal with the substance of Theology at all. They are in the narrowest sense of the word an 'introduction' to it. They deal for the most part with preliminaries; and it is only towards the end of the volume, where the Introduction begins insensibly to merge into that which it is designed to introduce, that purely theological doctrines are mentioned, except by way of illustration.

Although what follows might thus be fitly described as 'Considerations preliminary to a study of Theology,' I do not think the subjects dealt with are less important on that account. For, in truth, the decisive battles of Theology are fought beyond its frontiers. It is not over purely religious controversies that the cause of Religion is lost or won. The judgments we shall form upon its special problems are commonly settled for us by our general mode of looking at the Universe; and this again, in so far as it is determined by arguments at all, is determined by arguments of so wide a scope that they can seldom be claimed as more nearly concerned with Theology than with the philosophy of Science or of Ethics.

My object, then, is to recommend a particular way of looking at the World-problems which, whether we like it or not, we are compelled to face. I wish, if I can, to lead the reader up to a point of view whence the small fragments of the Infinite Whole, of which we are able to obtain a glimpse, may appear to us in their true relative proportions. This is, therefore, no work of 'Apologetics' in the ordinary sense of that word. Theological doctrines are not taken up in turn and defended from current objections; nor is there any endeavour here made specifically to solve the 'doubts' or allay

the 'difficulties' which in this, as in every other, age perplex the minds of a certain number of religious persons. Yet, as I think that perhaps the greater number of these doubts and difficulties would never even present themselves in that character were it not for a certain superficiality and one-sidedness in our habitual manner of considering the wider problems of belief, I cannot help entertaining the hope that by what is here said the work of the Apologist proper may indirectly be furthered.

197. What I have tried to do is not to write a monograph, or a series of monographs, upon Theology, but to delineate, and, if possible, to recommend, a certain attitude of mind; and I hope that in carrying out this less ambitious scheme I have put in few touches that were superfluous and left out none that were necessary.

198. In order that the views here advocated may be seen in the highest relief, it is convenient to exhibit them against the background of some other and contrasted system of thought. What system shall that be? In Germany the philosophies of Kant and his successors may be (I know not whether they are) matters of such common knowledge that they fittingly supply a standard of reference, by the aid of which the relative positions of other and more or less differing systems may be conveniently determined. As to whether this state of things, if it anywhere exists, is desirable or not, I offer no opinion. But I am very sure that it does not at present exist in any English-speaking community, and probably never will, until the ideas of these speculative giants are throughout rethought by Englishmen, and reproduced in a shape which ordinary Englishmen will consent to assimilate. Until this occurs, Transcendental Idealism must continue to be what it is now—the intellectual possession of a small minority of philosophical specialists. Philosophy cannot, under existing conditions, become, like Science, absolutely international. There is in matters speculative, as in matters poetical, a certain amount of natural protection for the home-producer, which commentators and translators seem unable altogether to overcome.

Though, therefore, I have devoted a chapter to the consideration of Transcendental Idealism as represented in some recent English writings, it is not with overt or tacit reference to that system that I have arranged the material of the following Essay. I have, on the

contrary, selected a system with which I am in much less sympathy, but which under many names numbers a formidable following, and is in reality the only system which ultimately profits by any defeats which Theology may sustain, or which may be counted on to flood the spaces from which the tide of Religion has receded. Agnosticism, Positivism, Empiricism, have all been used more or less correctly to describe this scheme of thought; though in the following pages, for reasons with which it is not necessary to trouble the reader, the term which I shall commonly employ is Naturalism. But whatever the name selected, the thing itself is sufficiently easy to describe. For its leading doctrines are that we may know 'phenomena'¹ and the laws by which they are connected, but nothing more. 'More' there may or may not be; but if it exists we can never apprehend it: and whatever the World may be 'in its reality' (supposing such an expression to be otherwise than meaningless), the World for us, the World with which alone we are concerned, or of which alone we can have any cognisance, is that World which is revealed to us through perception, internal and external, and which is the subject-matter of the Natural Sciences. Here, and here only, are we on firm ground. Here, and here only, can we discover anything which deserves to be described as Knowledge. Here, and here only, may we profitably exercise our reason or gather the fruits of Wisdom.

¹ I feel that explanation, and perhaps apology, is due for this use of the word 'phenomena'. In its proper sense the term implies, I suppose, that which *appears*, as distinguished from something, presumably more real, which does *not appear*. I neither use it as carrying this metaphysical implication, nor do I restrict it to things which appear, or even to things which *could* appear to beings endowed with senses like ours. The ether, for instance, though it is impossible that we should ever know it except by its effects, I should call a phenomenon. The coagulation of nebular meteors into suns and planets I should call a phenomenon, though nobody may have existed to whom it could appear. Roughly speaking, things and events, the general subject-matter of Natural Science, are what I endeavour to indicate by a term for which, as thus used, there is, unfortunately, no substitute, however little the meaning which I give to it can be etymologically justified.

While I am on the subject of definitions, it may be as well to say that, generally speaking, I distinguish between Philosophy and Metaphysics. To Philosophy I give an *epistemological* significance. I regard it as the systematic exposition of our grounds of knowledge. Thus, the philosophy of Religion or the philosophy of Science would mean the theoretic justification of our theological or scientific beliefs. By Metaphysics, on the other hand, I usually mean the knowledge that we have, or suppose ourselves to have, respecting realities which are not phenomenal, *e.g.* God, and the Soul.

Selections from the Introduction to the Cheap and Enlarged Edition.

199. The objection which seems most readily to suggest itself to my critics is that the whole argument is a long endeavour to find in doubt the foundation of belief, to justify an excess of credulity by an excess of scepticism. If all creeds, whether scientific or theological (it is thus I am supposed to argue), are equally irrational, all may be equally accepted. If there is no reason for believing anything, and yet something must in fact be believed, let that something be what we like rather than what we dislike. If constructive reason is demonstrably barren, why should we be ashamed to find contentment in prejudice.

I am not concerned to defend a theory which, whatever be its merits, is by no means the one which the following essay is intended to advocate. But it may be worth while to dwell for a moment on the causes to which this misconception of the argument is probably due. The first of these, though by much the least important, is, I imagine, to be found in the avowedly tentative character of the scheme of thought I have endeavoured to expound. This scheme certainly claims, rightly or wrongly, to be philosophical, but it does not claim to constitute a philosophy; nor do I for a moment desire to enter into the humblest competition with the great architects of metaphysical systems. The world owes much to these remarkable men, but it does not owe them as yet a generally accepted theory of the knowable; nor can I perceive any satisfactory indication that we are on the high-road to such a measure of agreement, either about the method of philosophy or its results, as has prevailed for two centuries in the case of science. Kant was of opinion that ‘metaphysic, notwithstanding its high pretension, had’ (up to the publication of the ‘Critique of Pure Reason’) ‘been wandering round and round the same point without gaining a step’. If Kant’s criterion of progress, namely, universal and permanent approval, is to be as rigorously applied to the period subsequent to 1781 as he applied it to the preceding twenty centuries, I fear that in *this* respect the publication of his masterpiece can hardly be said to open a new philosophic epoch. But without fully accepting this pessimistic view, it is surely permitted to those who do not feel themselves able either to frame a fresh system of philosophy or to acknowledge the jurisdiction of any old one, candidly to confess

the fact, without thereby laying themselves open to the charge of being dangerous sceptics masquerading for some sinister purpose as defenders of the faith! No doubt this unambitious procedure has its difficulties. It carries with it, as an almost inevitable corollary, the admission, not only that the provisional theory advocated is incomplete, but that to a certain extent its various parts are not entirely coherent. For if our ideal philosophy is, as I think it ought to be, a system of thought co-extensive with the knowable and the real, whose various elements are shown not only to be consistent, but to be interdependent, then it seems highly probable that anything short of this would not only be incomplete, but to a certain extent obscure and contradictory. It does not seem likely, nay, it seems almost impossible, that our knowledge of what is only a fragment could be exact knowledge even of that fragment. Divorced from the context which it explains, and by which it is itself explained, it must surely present incongruities and mysteries incapable of complete solution. To know in part must not merely be to know something less than the whole, but to know that something loosely and imperfectly.

Now this modest estimate of the present reach of speculation may, no doubt, be contrasted with two others, both of which seem at first sight more in harmony with the dignity of reason. That dignity is, of course, not impaired by a mere admission of ignorance. It is on all hands allowed that by far the largest portion of the knowable is yet unknown, and, so far as mankind on this planet are concerned, is likely to remain so. But our ignorance and our correlative knowledge may be pictured in more than one way. We might, for example, conceive ourselves as in possession of a general outline of the knowable, though ignorant of its details—as understanding in a broad but thoroughly consistent fashion the mutual relation of its principal provinces, though minutely acquainted with but a small corner of one of them. We should in that case be like geographers who had determined by an accurate triangulation the position of a few high mountain peaks dominating some vast continent, while avowedly unable to explore its interior, to penetrate its forests, or navigate its streams. Their knowledge would thus be small; yet in a certain sense it would cover the ground, it would be thoroughly coherent, and neither the progress of thought nor accumulating discoveries, however they might fill up its outlines, could seriously modify them.

200. The vital issue lies rather with those (in this book termed Naturalists) who map out the world of knowledge in a very different fashion. Unlike the metaphysicians, they glory in the limitations of their system. The narrower range of their vision is, they think, amply redeemed by its superior certitude. They admit, or rather proclaim, that the area of reality open to their investigation is small compared with that over which Metaphysics or Theology profess to range. But though small, it is admittedly accessible; such surveys as have already been made of it are allowed on all hands to be trustworthy; and it yields up its treasures of knowledge to methods of exploration which, valid though they be, can never, from the nature of the case, be employed in searching out the secrets of the surrounding solitudes.

It is, I imagine, by those whose philosophy conforms to this type, who are naturalistic rather than metaphysical, that the charge against the following essay of misusing sceptical methods is principally urged. And this is what might have been expected.

201. Scepticism in the field of Theology or Metaphysics is too common to excite remark. Believers in Naturalism are sceptical about all theology and all metaphysics. Theologians and Metaphysicians are sceptical about all theology and all metaphysics but their own. The one subject which sceptical criticism usually spares is the one subject against which, in this essay, it is directed, namely, the current beliefs about the world of phenomena. No wonder therefore that those to whom beliefs of this character represent the sum of all actual and all possible knowledge find ground of suspicion against this method of conducting controversy. No wonder they suggest that freedom of thought when thus employed is in some danger of degenerating into licence; that at the best it is useless, and may easily become harmful.

202. Everybody is gratified by the refutation of theories from which they differ; but they are apt to receive with impatience any criticism of statements on the truth of which (it may be) both they and the critic are agreed. Such questionings of the unquestionable are judged not only to be superfluous, but to be of dubious expediency—disquieting yet unproductive, a profitless display of more or less ingenious argumentation.

Now, it may readily be acknowledged that philosophic scepti-

cism which neither carries with it, nor is intended to carry with it, any practical doubt finds its chief uses within the region of pure speculation. *There* it may be a valuable measure of the success which speculative effort has already attained, a needful corrective of its exaggerated pretensions. It is at once a spur to philosophic curiosity and a touchstone of philosophic work. But even outside the sphere of pure speculation this sceptical criticism has its uses—humbler, no doubt, yet not without their value. Though it provides no material out of which a creed can be formed, it may yet give a much-needed warning that the apparent stability of some very solid-looking beliefs cannot be shown to extend to their foundations. It may thus most wholesomely disturb a certain kind of intellectual dogmatism, which is often a real hindrance to free speculation, and so prepare the ground for constructive labours, to which directly it contributes nothing.

This is the use to which I have endeavoured to put it; and surely not without ample justification. How many persons are there who acquiesce in the limitations of the Naturalistic creed, not because it appeals to them as adequate—responsive and satisfying to their whole nature—but because loyalty to reason seems to require their acceptance of it, and to require their acceptance of nothing else? 'Positive knowledge' they are taught to believe is really knowledge, and is the only knowledge. All else is but phantasy, unverified and unverifiable—speculative ore, unminted by experience, which each man may arbitrarily assess at his own valuation, which no man can force into general circulation. Naturalism, on the other hand, provides them with a system of beliefs which, with all its limitations, is in their judgment rational, self-consistent, sure. It may not give them all they ask; but what it promises it gives; and what it gives may be accepted in all security.

Now critical scepticism is the leading remedy indicated for this mood of dogmatic serenity. If it does nothing else, it should destroy the illusion that Naturalism is a creed in which mankind may find intellectual repose. It suggests the question whether, after all, there is, from the point of view of disinterested reason, this profound distinction between the beliefs which Naturalism accepts and those which it rejects, and, if not, whether it can be legitimate to suppose that the so-called 'conflict between religion and science' touches more than the fringe of the deeper problems with which we are really confronted in our endeavour to comprehend the world in which we live.

I have no doubt myself how this question should be answered. In spite of the importunate clamour which this 'conflict' has so often occasioned since the revival of learning, drowning at times even the domestic quarrelling of the Churches, the issues decided have, after all, been but secondary and unessential. It is true, no doubt, that high ecclesiastical authorities have seen fit from time to time to denounce the teaching of astronomy, or geology, or morphology, or anthropology, or historical criticism. It is also true that in the long run science is seen to be justified of all her children. But do not on this account let us fall into the vulgar error of supposing that these skirmishings decide, or help to decide, the great cause which is in debate between naturalism and religion. It is not so. The difficulties and obscurities which beset the attempt to fuse into a coherent whole the living beliefs of men are not to be found on one side only of the line dividing religion from science. Naturalism is not the goal towards which we are being driven by the intellectual endeavour of the ages; nor is anything gained either for philosophy or science by attempting to minimise its deficiencies.

203. But, of course, the dissipation of a prejudice, however fundamental, can at best be but an indirect contribution to the work of philosophic construction. Concede the full claims of the argument just referred to, it yet amounts to no more than this—that while it *is* irrational to adopt the procedure of Naturalism, and elevate scientific methods and conclusions into the test and measure of universal truth, it is *not* necessarily irrational for those who accept the general methods and conclusions of science, to accept also ethical and theological beliefs which cannot be reached by these methods, and which, it may be, harmonise but imperfectly with these conclusions. This is indeed no unimportant result: yet if the argument stopped here it might not be untrue, though it would assuredly be misleading, to say that the following essay only contributed to belief in one department of thought, by suggesting doubt in another. But the argument does not stop here. The most important part has still to be noted—that in which an endeavour is made to show that science, ethics, and (in its degree) æsthetics, are severally and collectively more intelligible, better fitted to form parts of a rational and coherent whole, when they are framed in a theological setting, than when they are framed in one which is purely naturalistic.

204. What, then, is meant by the phrase 'an accepted value' in (say) the case of scientific beliefs; and how can this be out of 'harmony with their origin'? The chief 'accepted value,' the only one which we need here consider, is *truth*. And what the formula asserts is that no creed is really harmonious which sets this high value on truth, or on true beliefs, and at the same time holds a theory as to the ultimate origin of beliefs which suggest their falsity. If, underlying the rational apparatus by which scientific beliefs are formally justified, there is a wholly non-rational machinery by which they are in fact produced, if we are of opinion that in the last resort our stock of convictions is determined by the blind interaction of natural forces and, so far as we know, by these alone, then there is a discord between one portion of our scheme of thought and another, between our estimate of values and our theory of origins, which may properly be described as inconsistency.

Again, if in the sphere of æsthetics we try to combine the 'accepted value' of some great work of art, or some moving aspect of Nature, with a theory which traces our feeling for the beautiful to a blind accident or an irresponsible freak of fashion, a like collision between our estimate of worth and our theory of origins must inevitably occur. The emotions stirred in us by loveliness or grandeur wither in the climate produced by such a doctrine, and the message they seem to bring us—not, as we would fain hope, of less import because it is inarticulate—becomes meaningless or trivial.

A precisely parallel argument may be applied with even greater force in the sphere of ethics. The ordinarily 'accepted value' of the moral law, of moral sentiments, of responsibility, of repentance, self-sacrifice, and high resolve, clashes hopelessly with any doctrine of origins which should trace the pedigree of ethics through the long-drawn developments produced by natural selection, till it be finally lost in some material, and therefore non-moral, beginning. In this case, as in the other two, we can only reach a consistency (relative, indeed, and imperfect at the best) if we assume behind, or immanent in, the chain of causes cognisable by science, a universal Spirit shaping them to a foreseen end.

205. It is enough for my present purpose to establish that we cannot plausibly assume a truthward tendency in the belief-forming processes, a growing approximation to verity in their results,

unless we are prepared to go further, and to rest that hypothesis itself on a theistic and spiritual foundation.

206. For him, again, if any such there be, whose agnosticism requires him to cut down his creed to the bare acceptance of a perceiving Self and a perceived series of subjective states, there can be no conflict between the theory of origins and the accepted value of the consequent beliefs, since by hypothesis he neither has, nor could have, any theory of origins at all. He lives in a world of shadows related to each other only as events succeeding each other in time; a world in which there is no room for contradiction as there is no room for anything that deserves to be called knowledge. The man who makes profession of such doctrines may justly be suspected of lying, but he is not open, in this connection at least, to any charge of philosophic inconsistency.

207. In the domain of religious speculations there are many who suppose that to explain the natural genesis of some belief or observance, to trace its growth from a lower to a higher form in different races and widely separated countries, is in some way to throw it into discredit. In the sphere of Ethics a like suspicion has perhaps prompted the various attempts to construct 'intuitive' systems of morals which shall owe nothing to historical development and psychological causation. I cannot believe that this is philosophically to be defended. Nothing, and least of all what most we value, has come to us ready made from Heaven. Yet if we are still to value it, the modern conception of its natural growth requires us more than ever to believe that from Heaven in the last resort it comes.

There is one more point on which I desire to throw light before bringing this Introduction to a close, one other class of objector whom, if possible, I should wish to conciliate. To these critics it may seem that, whatever be the value of the argumentative scheme herein set forth, it does not even pretend to give them that for which they have been looking. Compared with the philosophy of which they dream, it appears mere tinkering. It not only suffers, on its own confession, from rents and gaps, imperfect cohesion, unsolved antinomies, but it is infected by the vice inherent in all apologetics—the vice of foregone conclusions. It travels towards a

predestined end. Not content simply to follow reason where reason freely leads, it endeavours to cajole it into uttering oracles about the universe which shall do no violence to what are conceived to be the moral and emotional needs of man: a course which may be rational, but the rationality of which should (they think) be proved, but ought by no means to be assumed.

Now a criticism like this raises a most important question, which, in its full generality, does not perhaps receive all the attention it deserves. Since belief necessarily precedes the theory of belief, what is the proper relation which theory in the making should bear to beliefs already made? It may at first seem that any serious attempt to devise a philosophy should be preceded not merely by a suspension of judgment as to the truth of all pre-philosophic assumptions, but by their complete elimination as factors in the inquiry. From the nature of the case, they can as yet be no more than guesses, and in the eyes of philosophy a mere guess is as if it were not. The examination into what we ought to believe should therefore be wholly unaffected by what we do in fact believe. The seeker after truth should set forth on his speculative voyage neither committed to a predetermined course nor bound for any port of predilection, and it should seem to him a far smaller evil to lie stagnant and becalmed in universal doubt than to move towards the most attractive goal on any impulse but that of strictly disinterested reason.

The policy is an attractive one; but its immediate consequence would be a total and absolute sundering of theory and practice. In so far as he was theorist, the philosopher acting on these principles would, or should, regard himself as discredited if he believed anything which was not either self-evident or rationally involved in that which was self-evident. In so far as he was a citizen of the world, he could not live ten minutes without acting on some principle which still waits in vain for rational proof; and he would do so, be it observed, although (on his own principles) there is *no probability whatever* that when he has reached the philosophic theory of which he is in quest, it will be in any kind of agreement with his pre-philosophic practice. If such a probability exists, it should evidently have guided him in his investigations, and there would be at once an end of the 'clean slate and disinterested reason'.

For myself indeed I doubt whether this method is possible, or, if possible, likely to be fruitful. And I am fortified in this conviction by the reflection that those to whose constructive suggestions

the world owes most have favoured a different procedure. They have not thus speculated in the void. In their search for a world-theory wherein they might find repose, they have been guided by some pre-conceived ideal, borrowed in its main outlines from the thought of their age, to which by excisions, modifications, or additions, they have sought to give definiteness and a rational consistency.

208. For the present it is only necessary to state, by way of contrast, what I conceive to be the mode in which philosophy can most profitably order its course in the presence of those living beliefs which precede it in order of time, though not in order of logic.

In my view, then, philosophy should do avowedly, and with open eyes, what in fact it has constantly done, though silently and with hesitation. It should provisionally assume, not of course that the general body of our beliefs are in conformity with reality, but that they represent a stage in the movement towards such conformity; that in particular the great presuppositions (such as, for example, the uniformity of Nature or the existence of a persistent reality capable of being experienced by us but independent of our experience) which form as it were the essential skeleton of our working creed, should be regarded as matters which it is our business, if possible, rationally to establish, but not necessarily our business to ignore until such time as our efforts shall have succeeded.

209. Whether, taking as our point of departure beliefs as they are, we look for the setting which shall bind them into the most coherent whole; or whether, in searching out what they ought to be, we ask in what direction we had best start our explorations, we seem equally moved towards the hypothesis of a Spiritual origin common to the knower and the known.

210. Knowledge does not grow merely by the addition of new discoveries: nor is it purified merely by the subtraction of detected errors. Truth and falsehood are often too intimately combined to be dissociated by any simple method of filtration. It is by a subtler process that new verities, while increasing the sum of our beliefs, act even more effectively as a kind of ferment, impressing on

those that already exist a novel and previously unsuspected character; just as a fresh touch of colour added to a picture, though it immediately affects but one corner of the canvas, may yet change the whole from unlikeness to likeness, from confusion to significance.

Now if this be a faithful representation of what actually occurs, it seems plain that to amputate important departments of belief in order to free what remains from any trace of incoherence, might, even if it succeeded, be to hinder, not to promote, the cause of truth. Nothing, indeed, which is incoherent can be true. But though it cannot be true, it may not only contain much truth, but may contain more than any system in which both the true and the false are abandoned in the premature and, at this stage of development, hopeless endeavour after a creed which, within however narrow limits, shall be perfectly clear and self-consistent. Most half-truths are half-errors; but who is there who would refrain from grasping the half-truth although he could not obtain it at a less cost than that of taking the half-error with it?

There are those who would accept the historical application of this doctrine, who would admit that logical laxity had often in fact been of service to intellectual progress, but would altogether deny the propriety of admitting that such a theory could have any practical bearing on their own case. They would draw a distinction between a detected and an undetected incoherence. The unconscious acquiescence in the latter may happen to aid the cause of knowledge: the conscious acquiescence in the former must be a sin against reason. I do not think the distinction will hold. Our business is to reach as much truth as we can; and neither observation nor reflection give any countenance to the notion that this end will best be attained by turning the merely critical understanding into the undisputed arbiter in all matters of belief. Its importance for the clarification of knowledge cannot indeed be exaggerated. As a commentator it should be above control. As cross-examiner its rights should be unlimited. But it cannot arrogate to itself the duties of a final court of appeal. Should it, for example, show, as I think it does, that neither the common-sense views of ordinary men, nor the modification of these on which science proceeds, nor the elaborated systems of metaphysics, are more than temporary resting-places, seen to be insecure almost as soon as they are occupied, yet we must still hold them to be stages on a journey towards something better than a futile scepticism which, were it possible in practice, would be ruinous alike to every

form of conviction, whether scientific, ethical, or religious. When that journey is accomplished, but only then, can we hope that all difficulties will be smoothed away, all anomalies be reconciled, and the certainty and rational interdependence of all its parts made manifest in the transparent Whole of Knowledge.

Idealism.

211. Transcendental Idealism is, if I mistake not, at this moment in rather a singular position in this country. In the land of its birth (as I am informed) it is but little considered. In English-speaking countries it is, within the narrow circle of professed philosophers, perhaps the dominant mood of thought; while without that circle it is not so much objected to as totally ignored. This anomalous state of things is no doubt due in part to the inherent difficulty of the subject; but even more, I think, to the fact that the energy of English Idealists has been consumed rather in the production of commentaries on other people's systems than in expositions of their own. The result of this is that we do not quite know where we are, that we are more or less in a condition of expectancy, and that both learners and critics are placed at a disadvantage. Pending the appearance of some original work which shall represent the constructive views of the younger school of thinkers, I have written the following chapter, with reference chiefly to the writings of the late Mr. T. H. Green, which at present contain the most important exposition, so far as I know, of this phase of English thought. Mr. Bradley's noteworthy work, "Appearance and Reality," published some time after this chapter was finished, is written with characteristic independence; but I know not whether it has yet commanded any large measure of assent from the few who are competent to pronounce a verdict upon its merits.

212. It is clear that the theory to which Transcendental Idealism may be, from our point of view, considered as a reply, is *not* the theory of experience which is taken for granted in ordinary scientific statement, but the closely allied "psychological theory of perception" evolved by thinkers usually classed rather as philosophers than as men of science. The difference is not wholly immaterial, as will appear in the sequel.

213. It becomes plain that just as the real in external experi-

ence is real only in virtue of an intellectual element, namely, ideas of relation (categories), through which it was apprehended, so in internal experience ideas and sensations presuppose the existence of an 'I,' or self-conscious unity, which is neither sensation nor idea, which ought not, therefore, on the psychological theory to be considered as having any claim to reality at all, but which, nevertheless, is presupposed in the very possibility of phenomena appearing as elements in a single experience.

We are thus apparently left by the idealist theory face to face with a mind (thinking subject) which is the source of relations (categories), and a world which is constituted by relations; with a mind which is conscious of itself, and a world of which that mind may without metaphor be described as the creator. We have, in short, reached the central position of transcendental idealism.

214. I am reluctant to suggest objections to any theory which promises results so admirable. Yet I cannot think that all the difficulties with which it is surrounded have been fairly faced, or, at any rate, fully explained, by those who accept its main principles. Consider, for example, the crucial question of the analysis which reduces all experience to an experience of relations, or, in more technical language, which constitutes the universe out of categories. We may grant without difficulty that the contrasted theory, which proposes to reduce the universe to an unrelated chaos of impressions or sensations, is quite untenable. But must we not also grant that in all experience there is a refractory element which, though it cannot be presented in isolation, nevertheless refuses wholly to merge its being in a network of relations, necessary as these may be to give it "significance for us as thinking beings"? If so, whence does this irreducible element arise? The mind, we are told, is the source of relation. What is the source of that which is related? A 'thing-in-itself' which, by impressing the percipient mind, shall furnish the 'matter' for which categories provide the 'form,' is a way out of the difficulty (if difficulty there be) which raises more doubts than it solves. The followers of Kant themselves make haste to point out that this hypothetical cause of that which is 'given' in experience cannot, since *ex hypothesi* it lies beyond experience, be known as a cause, or even as existing. Nay, it is not so much unknown and unknowable as indescribable and unintelligible; not so much a riddle whose meaning is obscure as mere

absence and vacuity of any meaning whatever. Accordingly, from the speculations with which we are here concerned it has been dismissed with ignominy, and it need not, therefore, detain us further.

But we do not get rid of the difficulty by getting rid of Kant's solution of it. His dictum still seems to me to remain true, that "without matter categories are empty". And, indeed, it is hard to see how it is possible to conceive a universe in which relations shall be all in all, but in which nothing is to be permitted for the relations to subsist between. Relations surely imply a something which is related, and if that something is, in the absence of relations, "nothing for us as thinking beings," so relations in the absence of that something are mere symbols emptied of their signification; they are, in short, an 'illegitimate abstraction'.

Those, moreover, who hold that these all-constituting relations are the 'work of the mind' would seem bound also to hold that this concrete world of ours, down to its minutest detail, must evolve itself *a priori* out of the movement of 'pure thought'. There is no room in it for the 'contingent'; there is no room in it for the 'given'; experience itself would seem to be a superfluity. And we are at a loss, therefore, to understand why that dialectical process which moves, I will not say so convincingly, but at least so smoothly, through the abstract categories of 'being,' 'not-being,' 'becoming,' and so forth, should stumble and hesitate when it comes to deal with that world of Nature which is, after all, one of the principal subjects about which we desire information. No explanation which I remember to have seen makes it otherwise than strange that we should, as the idealists claim, be able so thoroughly to identify ourself with those thoughts of God which are the necessary preliminary to creation, but should so little understand creation itself; that we should out of our unaided mental resources be competent to reproduce the whole ground-plan of the universe, and should yet lose ourselves so hopelessly in the humblest of its ante-rooms.

215. All that the transcendental argument requires, or even allows us to accept, is a 'manifold' of relations on the one side, and a bare self-conscious principle of unity on the other, by which that manifold becomes interconnected in the "field of a single experience". We are not permitted, except by a process of abstraction which is purely temporary and provisional, to consider the 'manifold' apart from the 'unity,' nor the 'unity' apart from the 'mani-

fold'. The thoughts do not make the thinker, nor the thinker the thoughts; but together they constitute that Whole or Absolute whose elements, as they are mere no-sense apart from one another, cannot in strictness be even said to contribute separately towards the total result.

Now let us consider what bearing this conclusion has upon (1) Theology, (2) Ethics, and (3) Science.

As regards Theology, it might be supposed that at least idealism provided us with a universe which, if not created or controlled by Reason (creation and control implying causal action), may yet properly be said to be throughout infused by Reason and to be in necessary harmony with it. But on a closer examination difficulties arise which somewhat mar this satisfactory conclusion. In the first place, if theology is to provide us with a groundwork for religion, the God of whom it speaks must be something more than the bare "principle of unity" required to give coherence to the multiplicity of Nature. Apart from Nature He is, on the theory we are considering, a mere metaphysical abstraction, the geometrical point through which pass all the threads which make up the web of possible experience: no fitting object, surely, of either love, reverence, or devotion. In combination with Nature He is no doubt "the principle of unity," and all the fullness of concrete reality besides; but every quality with which He is thus associated belongs to that portion of the Absolute Whole, from which, by hypothesis, He distinguishes Himself; and were it otherwise, we cannot find in these qualities, compacted, as they are, of good and bad, of noble and base, the Perfect Goodness without which religious feelings can never find an adequate object. Thus, neither the combining principle alone, nor the combining principle considered in its union with the multiplicity which it combines, can satisfy the requirements of an effectual theology. Not the first, because it is a barren abstraction; not the second, because in its all-inclusive universality it holds in suspension, without preference and without repulsion, every element alike of the knowable world. Of these none, whatever be its nature, be it good or bad, base or noble, can be considered as alien to the Absolute: all are necessary, and all are characteristic.

Of these two alternatives, I understand that it is the first which is usually adopted by the school of thought with which we are at present concerned. It may therefore be desirable to reiterate that a 'unifying principle' can, as such, have no qualities, moral or otherwise. Lovingkindness, for example, and Equity are attributes

which, like all attributes, belong not to the unifying principle, but to the world of objects which it constitutes. They are conceptions which belong to the realm of empirical psychology. Nor can I see any method by which they are to be hitched on to the "pure spiritual subject," as elements making up its essential character.

But if this be so, what is the ethical value of that freedom which is attributed by the idealistic theory to the self-conscious 'I'? It is true that this 'I' as conceived by idealism is above all the 'categories,' including, of course, the category of causation. It is not in space nor in time. It is subject neither to mutation nor decay. The stress of material forces touches it not, nor is it in any servitude to chance or circumstance, to inherited tendencies or acquired habits. But all these immunities and privileges it possesses in virtue of its being, *not* an agent in a world of concrete fact, but a thinking 'subject,' for whom alone, as it is alleged, such a world exists. Its freedom is metaphysical, not moral; for moral freedom can only have a meaning at all in reference to a being who acts and who wills, and is only of real importance for us in relation to a being who not only acts, but is acted on, who not only wills, but who wills against the opposing influences of temptation. Such freedom cannot, it is plain, be predicated of a mere 'subject,' nor is the freedom proper to a 'subject' of any worth to man as 'object,' to man as known in experience, to man fighting his way with varying fortunes against the stream of adverse circumstances, in a world made up of causes and effects.

216. This proposition would, probably, not be widely dissented from by some of the ethical writers of the idealist school. The freedom which they postulate is not the freedom merely of the pure self-conscious subject. On the contrary, it is the individual, with all his qualities, passions, and emotions, who in their view possesses free will. But the ethical value of the freedom thus attributed to self-conscious agents seems on further examination to disappear. Mankind, it seems, are on this theory free, but their freedom does not exclude determinism, *but only that form of determinism which consists in external constraint*. Their actions are upon this view strictly prescribed by their antecedents, but these antecedents are nothing other than the characters of the agents themselves.

Now it may seem at first sight plausible to describe that man as free whose behaviour is due to 'himself' alone. But without quar-

telling over words, it is, I think, plain that, whether it be proper to call him free or not, he at least lacks freedom in the sense in which freedom is necessary in order to constitute responsibility. It is impossible to say of him that he 'ought,' and therefore he 'can'. For at any given moment of his life his next action is by hypothesis strictly determined. This is also true of every previous moment, until we get back to that point in his life's history at which he cannot, in any intelligible sense of the term, be said to have a character at all. Antecedently to this, the causes which have produced him are in no special sense connected with his individuality, but form part of the general complex of phenomena which make up the world. It is evident, therefore, that every act which he performs may be traced to pre-natal, and possibly to purely material, antecedents, and that, even if it be true that what he does is the outcome of his character, his character itself is the outcome of causes over which he has not, and cannot by any possibility have, the smallest control. Such a theory destroys responsibility, and leaves our actions the inevitable outcome of external conditions not less completely than any doctrine of controlling fate, whether materialistic or theological.

217. If the words 'self,' 'ego,' 'I' are to be used intelligibly at all, they must mean, whatever else they do or do not mean, a 'some-what' which is self-distinguished, not only from every other knowable object, but also from every other possible 'self'. What we are 'in ourselves,' apart from the flux of thoughts and feelings which move in never-ending pageant through the chambers of consciousness, metaphysicians have, indeed, found it hard to say. Some of them have said we are nothing. But if this conclusion be, as I think it is, conformable neither to our instinctive beliefs nor to a sound psychology; if we are, as I believe, more than a mere series of occurrences, yet it seems equally certain that the very notion of Personality excludes the idea of any one person being a 'mode' of any other, and forces us to reject from philosophy a supposition which, if it be tolerable at all, can find a place only in mysticism.

But the idealistic theory pressed to its furthest conclusions requires of us to reject, as it appears to me, even more than this. We are not only precluded by it from identifying ourselves, even partially, with the Eternal Consciousness: we are also precluded from supposing that either the Eternal Consciousness or any other consciousness exists, save only our own. For, as I have already said, the

Eternal Consciousness, if it is to be known, can only be known on the same conditions as any other object of knowledge. It must be constituted by relations; it must form part of the “content of experience” of the knower; it must exist as part of the ‘multiplicity’ reduced to ‘unity’ by his self-consciousness. But to say that it can only be known on these terms, is to say that it cannot be known as it exists; for if it exists at all, it exists by hypothesis as Eternal Subject, and as such it clearly is not constituted by relations, nor is it either a “possible object of experience,” or “anything for us as thinking beings”.

No consciousness, then, is a possible object of knowledge for any other consciousness: a statement which, on the idealistic theory of knowledge, is equivalent to saying that for any one consciousness all other consciousnesses are less than non-existent. For as that which is ‘critically’ shown to be an inevitable element in experience has thereby conferred on it the highest possible degree of reality, so that which cannot on any terms become an element in experience falls in the scale of reality far below mere not-being, and is reduced, as we have seen, to mere meaningless no-sense. By this kind of reasoning the idealists themselves demonstrate the ‘I’ to be necessary; the unrelated object and the thing-in-itself to be impossible. Not less, by this kind of reasoning, must each one of us severally be driven to the conclusion that in the infinite variety of the universe there is room for but one knowing subject, and that this subject is ‘himself’.

218. Surely we must think of God as, on the transcendental theory, we think of ourselves; that is, as a Subject distinguishing itself from, but giving unity to, a world of phenomena. But if such a Subject and such a world cannot be conceived without also postulating some higher unity in which their differences shall vanish and be dissolved, then God Himself would require some yet higher deity to explain His existence. If, in short, a multiplicity of phenomena presented to and apprehended by a conscious ‘I’ form together an intelligible and self-sufficient whole, then it is hard to see by what logic we are to get beyond the solipsism which, as I have urged in the text, seems to be the necessary outcome of one form, at least, of the transcendental argument. If, on the other hand, subject and object cannot form such an intelligible and self-sufficient whole, then it seems impossible to imagine what is the nature of that Infinite One

in which the multiplicity of things and persons find their ultimate unity. Of such a God we can have no knowledge, nor can we say that we are formed in His image, or share His essence.

219. Assuming for the sake of argument that the world is constituted by 'categories,' the old difficulty arises in a new shape when we ask on what principle those categories are in any given case to be applied. For they are admittedly not of universal application; and, as the idealists themselves are careful to remind us, there is no more fertile source of error than the importation of them into a sphere wherein they have no legitimate business. Take, for example, the category of causation, from a scientific point of view, the most important of all. By what right does the existence of this 'principle of relation' enable us to assert that throughout the whole world every event must have a cause, and every cause must be invariably succeeded by the same event? Because we *can* apply the category, are we, therefore, *bound* to apply it? Does any absurdity or contradiction ensue from our supposing that the order of Nature is arbitrary and casual, and that, repeat the antecedent with what accuracy we may, there is no security that the accustomed consequent will follow? I must confess that I can perceive none. Of course, we should thus be deprived of one of our most useful "principles of unification"; but this would by no means result in the universe resolving itself into that unthinkable chaos of unrelated atoms which is the idealist bugbear. There are plenty of categories left; and if the final aim of philosophy be, indeed, to find the Many in One and the One in Many, this end would be as completely, if not as satisfactorily, accomplished by conceiving the world to be presented to the thinking 'subject' in the haphazard multiplicity of unordered succession, as by any more elaborate method. Its various elements lying side by side in one Space and one Time would still be related together in the content of a single experience; they would still form an intelligible whole; their unification would thus be effectually accomplished without the aid of the higher categories. But it is evident that a universe so constituted, though it might not be inconsistent with Philosophy, could never be interpreted by Science.

As we saw in the earlier portion of this chapter, it is not very easy to understand why, if the universe be constituted by relations, and relations are the work of the mind, the mind should be dependent on experience for finding out anything about the universe. But

granting the necessity of experience, it seems as hard to make that experience answer our questions on the idealist as on the empirical hypothesis. Neither on the one theory nor on the other does any method exist for extracting general truths out of particular observations, unless *some* general truths are first assumed. On the empirical hypothesis there are no such general truths. Pure empiricism has, therefore, no claim to be a philosophy. On the idealist hypothesis there appears to be only one general truth applicable to the whole intelligible world—a world which, be it recollected, includes everything in respect to which language can be significantly used; a world which, therefore, includes the negative as well as the positive, the false as well as the true, the imaginary as well as the real, the impossible as well as the possible. This single all-embracing truth is that the multiplicity of phenomena, whatever be its nature, must always be united, and only exists in virtue of being united, in the experience of a single self-conscious Subject. But this general proposition, whatever be its value, cannot, I conceive, effectually guide us in the application of subordinate categories. It supplies us with no method for applying one principle rather than another within the field of experience. It cannot give us information as to what portion of that field, if any, is subject to the law of causation, nor tell us which of our perceptions, if any, may be taken as evidence of the existence of a permanent world of objects such as is implied in all scientific doctrine. Though, therefore, the old questions come upon us in a new form, clothed, I will not say shrouded, in a new terminology, they come upon us with all the old insistence. They are restated, but they are not solved; and I am unable, therefore, to find in idealism any escape from the difficulties which, in the region of theology, ethics, and science, empiricism leaves upon our hands.

Selections from the Appendix entitled “Beliefs, Formulas, and Realities”.

220. Assuming, as we do, that Knowledge exists, we can hardly do otherwise than make the further assumption that it has grown and must yet further grow. In what manner, then, has that growth been accomplished? What are the external signs of its successive stages, the marks of its gradual evolution? One, at least, must strike all who have surveyed, even with a careless eye, the course of human speculation—I mean the recurring process by which the explanations or explanatory formulas in terms of which mankind

endeavour to comprehend the universe are formed, are shattered, and then in some new shape are formed again. It is not, as we sometimes represent it, by the steady addition of tier to tier that the fabric of knowledge uprises from its foundation. It is not by mere accumulation of material, nor even by a plant-like development, that our beliefs grow less inadequate to the truths which they strive to represent. Rather are we like one who is perpetually engaged in altering some ancient dwelling in order to satisfy new-born needs. The ground-plan of it is being perpetually modified. We build here ; we pull down there. One part is kept in repair ; another part is suffered to decay. And even those portions of the structure which may in themselves appear quite unchanged, stand in such new relations to the rest, and are put to such different uses, that they would scarce be recognised by their original designer.

Yet even this metaphor is inadequate, and perhaps misleading. We shall more accurately conceive the true history of knowledge if we represent it under the similitude of a plastic body whose shape and size are in constant process of alteration through the operation both of external and of internal forces. The internal forces are those of reason. The external forces correspond to those non-rational causes on whose importance I have already dwelt. Each of these agencies may be supposed to act both by way of destruction and of addition. By their joint operation new material is deposited at one point, old material is eroded at another ; and the whole mass, whose balance has been thus disturbed, is constantly changing its configuration and settling towards a new position of equilibrium, which it may approach, but can never quite attain.

We must not, however, regard this body of beliefs as being equally mobile in all its parts. Certain elements in it have the power of conferring on the whole something in the nature of a definite structure. These are known as 'theories,' 'hypotheses,' 'generalisations,' and 'explanatory formulas' in general. They represent beliefs by which other beliefs are co-ordinated. They supply the framework in which the rest of knowledge is arranged. Their right construction is the noblest work of reason ; and without their aid reason, if it could be exercised at all, would itself be driven from particular to particular in helpless bewilderment.

221. As chalk consists of little else but the remains of dead animalcula, so the history of thought consists of little else but an

accumulation of abandoned explanations. In that vast cemetery every thrust of the shovel turns up some bone that once formed part of a living theory; and the biography of most of these theories would, I think, confirm the general account which I have given of their birth, maturity, and decay.

222. Now we may well suppose that under existing circumstances death is as necessary in the intellectual world as it is in the organic. It may not always result in progress, but without it, doubtless, progress would be impossible; and if, therefore, the constant substitution of one explanation for another could be effected smoothly, and, as it were in silence, without disturbing anything beyond the explanations themselves, it need cause in general neither anxiety nor regret. But, unfortunately, in the case of Theology, this is not always the way things happen. There, as elsewhere, theories arise, have their day, and fall; but there, far more than elsewhere, do these theories in their fall endanger other interests than their own. More than one reason may be given for this difference. To begin with, in Science the beliefs of sense-perception, which, as I have implied, are commonly vigorous enough to resist the warping effect of theory, even when the latter is in its full strength, are not imperilled by its decay. They provide a solid nucleus of unalterable conviction, which survives uninjured through all the mutations of intellectual fashion. We do not require the assistance of hypotheses to sustain our faith in what we see and hear. Speaking broadly, that faith is unalterable and self-sufficient.

Theology is less happily situated. There it often happens that when a theory decays, the beliefs to which it refers are infected by a contagious weakness. The explanation and the thing explained are mutually dependent. They are animated as it were with a common life, and there is always a danger lest they should be overtaken by a common destruction.

Consider this difference between Science and Theology in the light of the following illustration. The whole instructed world were quite recently agreed that heat was a form of matter. With equal unanimity they now hold that it is a mode of motion. These opinions are not only absolutely inconsistent, but the change from one to the other is revolutionary and involves the profoundest modification of our general views of the material world. Yet no one's confidence in the existence of some quality in things by which

his sensations of warmth are produced is thereby disturbed; and we may hold either of these theories, or both of them in turn, or no theory at all, without endangering the stability of our scientific faith.

Compare with this example drawn from physics one of a very different kind drawn from theology. If there be a spiritual experience to which the history of religion bears witness, it is that of Reconciliation with God. If there be an 'objective' cause to which the feeling is confidently referred, it is to be found in the central facts of the Christian story. Now, incommensurable as the subject is with that touched on in the last paragraph, they resemble each other at least in this—that both have been the theme of much speculation, and that the accounts of them which have satisfied one generation, to another have seemed profitless and empty. But there the likeness ends. In the physical case, the feeling of heat and the inward assurance that it is really connected with some quality in the external body from which we suppose ourselves to derive it, survive every changing speculation as to the nature of that quality and the mode of its operation. In the spiritual case, the sense of Reconciliation connected by the Christian conscience with the life and death of Christ seems in many cases to be bound up with the explanations of the mystery which from time to time have been hazarded by theological theorists. And as these explanations have fallen out of favour, the truth to be explained has too often been abandoned also.

223. No doubt, when a belief is only accepted as the conclusion of some definite inferential process, with that process it must stand or fall. If, for instance, we believe that there is hydrogen in the sun, solely because that conclusion is forced upon us by certain arguments based upon spectroscopic observations, then, if these arguments should ever be discredited, the belief in solar hydrogen would, as a necessary consequence, be shaken or destroyed. But in cases where the belief is rather the occasion of an hypothesis than a conclusion from it, the destruction of the hypothesis may be a reason for devising a new one, but is certainly no reason for abandoning the belief. Nor in science do we ever take any other view. We do not, for example, step over a precipice because we are dissatisfied with all the attempts to account for gravitation. In theology, however, experience does sometimes lean too timidly on theory, and when in the course of time theory decays, it drags down experience in its fall. How many persons are there who, because

they dislike the theories of Atonement propounded, say, by Anslem, or by Grotius, or the versions of these which have imbedded themselves in the devotional literature of Western Europe, feel bound ‘in reason’ to give up the doctrine itself? Because they cannot compress within the rigid limits of some semi-legal formula a mystery which, unless it were too vast for our full intellectual comprehension, would surely be too narrow for our spiritual needs, the mystery itself is to be rejected! Because they cannot contrive to their satisfaction a system of theological jurisprudence which shall include Redemption as a leading case, Redemption is no longer to be counted among the consolations of mankind!

224. There is, however, another reason beyond the natural strength of the judgments due to sense-perception which tends to make the change or abandonment of explanatory formulas a smoother operation in science than in theology; and this reason is to be found in the fact that Religion works, and, to produce its full results, must needs work, through the agency of organised societies. It has, therefore, a social side, and from this its speculative side cannot, I believe, be kept wholly distinct. For although feeling is the effectual bond of all societies, these feelings themselves, it would seem, cannot be properly developed without the aid of something which is, or which does duty as, a reason. They require some alien material on which, so to speak, they may be precipitated; round which they may crystallise and coalesce. In the case of political societies this reason is founded on identity of race, of language, of country, or even of mere material interest. But when the religious society and the political are not, as in primitive times, based on a common ground, the desired reason can scarcely be looked for elsewhere, and, in fact, never is looked for elsewhere, than in the acceptance of common religious formulas. Whence it comes about that these formulas have to fulfil two functions which are not merely distinct but incomparable. They are both a statement of theological conclusions and the symbols of a corporate unity. They represent at once the endeavour to systematise religious truth and to organise religious associations; and they are therefore subject to two kinds of influence, and involve two kinds of obligation, which, though seldom distinguished, are never identical, and may sometimes even be opposed.

225. The rage for defining which seized so large a portion of

Christendom, both Roman and non-Roman, during the Reformation troubles, and the fixed determination to turn the definitions, when made, into impassable barriers between hostile ecclesiastical divisions, are among the most obvious, but not, I think, among the most satisfactory, facts in modern religious history. To the definitions taken simply as well-intentioned efforts to make clear that which was obscure, and systematic that which was confused, I raise no objections. Of the practical necessity for some formal basis of Christian co-operation I am, as I have said, most firmly convinced. But not every formula which represents even the best theological opinion of its age is therefore fitted to unite men for all time in the furtherance of common religious objects, or in the support of common religious institutions ; and the error committed in this connection by the divines of the Reformation, and the counter-Reformation, largely consisted in the mistaken supposition that symbols and decrees, in whose very elaboration could be read the sure prophecy of decay, were capable of providing a convenient framework for a perpetual organisation.

226. The doctrines of science have not got to be discussed amid the confusion and clamour of the market-place ; they stir neither hate nor love ; the fortunes of no living polity are bound up with them ; nor is there any danger lest they become petrified into party watchwords. Theology is differently situated. There the explanatory formula may be so historically intertwined with the sentiments and traditions of the ecclesiastical organisation ; the heat and pressure of ancient conflicts may have so welded them together, that to modify one and leave the other untouched seems well-nigh impossible. Yet even in such cases it is interesting to note how unexpectedly the most difficult adjustments are sometimes effected ; how, partly by the conscious, and still more by the unconscious, wisdom of mankind ; by a little kindly forgetfulness ; by a few happy inconsistencies ; by methods which might not always bear the scrutiny of the logician, though they may well be condoned by the philosopher, the changes required by the general movement of belief are made with less friction and at a smaller cost—even to the enlightened—than might, perhaps, antecedently have been imagined.

227. Incessant variation in the uses to which we put the

same expression is absolutely necessary if the complexity of the Universe is, even in the most imperfect fashion, to find a response in thought. If terms were counters, each purporting always to represent the whole of one unalterable aspect of reality, language would become, not the servant of thought, nor even its ally, but its tyrant. The wealth of our ideas would be limited by the poverty of our vocabulary. Science could not flourish, nor Literature exist. All play of mind, all variety, all development would perish; and mankind would spend its energies, not in using words, but in endeavouring to define them.

228. If language, from the very nature of the case, hangs thus loosely to the belief which it endeavours to express, how closely does the belief fit to the reality with which it is intended to correspond? To hear some persons talk one would really suppose that the enlightened portion of mankind, i.e. those who happen to agree with them, were blessed with a precise knowledge respecting large tracts of the Universe. They are ready on small provocation to embody their beliefs, whether scientific or theological, in a series of dogmatic statements which, as they will tell you, accurately express their own accurate opinions, and between which and any differing statements on the same subject is fixed that great gulf which divides for ever the realms of Truth from those of Error. Now I would venture to warn the reader against paying any undue meed of reverence to the axiom on which this view essentially depends, the axiom, I mean, that ‘every belief must be either true or not true’. It is, of course, indisputable. But it is also unimportant: and it is unimportant for this reason, that if we insist on assigning every belief to one or other of these two mutually exclusive classes, it will be found that most, if not all, the positive beliefs which deal with concrete reality—the very beliefs, in short, about which a reasonable man may be expected principally to interest himself—would in strictness have to be classed among the ‘not true’. I do not say, be it observed, that all propositions about the concrete world must needs be erroneous; for, as we have seen, every proposition provides the fitting verbal expression for many different beliefs, and of these it may be that one expresses the full truth. My contention merely is, that inasmuch as any fragmentary presentation of a concrete whole must, because it is fragmentary, be therefore erroneous, the full complexity of any true belief about reality will

necessarily transcend the comprehension of any finite intelligence. We know only in part, and we therefore know wrongly.

229. The division of beliefs into the True, the Incomplete, and the Wholly False may be, and for many purposes is, a very convenient one. But in the first place it is not philosophically accurate, since that which is incomplete is touched throughout with some element of falsity. And in the second place it does not happen to be the division on which we are engaged. We are dealing with the logical contradictories 'True' and 'Not True'. And what makes it worth while dealing with them is that the particular classification of beliefs which they suggest lies at the root of much needless controversy in all branches of knowledge, and not least in theology; and that everywhere it has produced some confusion of thought, and, it may be, some defect of charity. It is not in human nature that those who start from the assumption that all opinions are either true or not true, should do otherwise than take for granted that their own particular opinions belong to the former category; and that therefore all inconsistent opinions held by other people must belong to the latter. Now this, in the current affairs of life, and in the ordinary commerce between man and man, is not merely a pardonable but a necessary way of looking at things. But it is foolish and even dangerous when we are engaged on the deeper problems of science, metaphysics, or theology; when we are endeavouring in solitude to take stock of our position in the presence of the Infinite. However profound may be our ignorance of our ignorance, at least we should realise that to describe (when using language strictly) any scheme of belief as wholly false which has even imperfectly met the needs of mankind, is the height of arrogance; and that to claim for any beliefs which we happen to approve that they are wholly true, is the height of absurdity.

Somewhat more, be it observed, is thus required of us than a bare confession of ignorance. The least modest of men would admit without difficulty that there are a great many things which he does not understand; but the most modest may perhaps be willing to suppose that there are some things which he does. Yet outside the relations of abstract propositions (about which I say nothing) this cannot be admitted. Nowhere else—neither in our knowledge of ourselves, nor in our knowledge of each other, nor in our knowledge of the material world, nor in our knowledge of God,

is there any belief which is more than an approximation, any method which is free from flaw, any result not tainted with error. The simplest intuitions and the remotest speculations fall under the same condemnation. And though the fact is apt to be hidden from us by the unyielding definitions with which alike in science and theology it is our practice to register attained results, it would, as we have seen, be a serious mistake to suppose that any complete correspondence between Belief and Reality was secured by the linguistic precision and the logical impeccability of the propositions by which beliefs themselves are communicated and recorded.

To some persons this train of reflection suggests nothing but sceptical misgiving and intellectual despair. To me it seems, on the other hand, to save us from both. What kind of a Universe would that be which we could understand? If it were intelligible (by us), would it be credible? If our reason could comprehend it, would it not be too narrow for our needs? 'I believe because it is impossible' may be a pious paradox. 'I disbelieve because it is simple' commends itself to me as an axiom. An axiom doubtless to be used with discretion: an axiom which may easily be perverted in the interests of idleness and superstition; an axiom, nevertheless, which contains a valuable truth not always remembered by those who make especial profession of worldly wisdom.

230. The conviction that there are Christian verities which, once secured for the human race, cannot by any lapse of time be rendered obsolete is one which no Church would willingly abandon. Yet the fact that theological thought follows the laws which govern the evolution of all other thought, that it changes from age to age, largely as regards the relative emphasis given to its various elements, not inconsiderably as regards the substance of those elements themselves, is a fact written legibly across the pages of ecclesiastical history. How is this apparent contradiction to be accommodated?

231. Uniformity of profession can be regarded as unimportant only by those who forget that, while there is no necessary connection whatever between the causes which conduce to successful co-operation and those which conduce to the attainment of speculative truth, of these two objects the first may, under certain circumstances, be much

more important than the second. A Church is something more than a body of more or less qualified persons engaged more or less successfully in the study of theology. It requires a very different equipment from that which is sufficient for a learned society. Something more is asked of it than independent research. It is an organisation charged with a great practical work. For the successful promotion of this work unity, discipline, and self-devotion are the principal requisites; and, as in the case of every other such organisation, the most powerful source of these qualities is to be found in the feelings aroused by common memories, common hopes, common loyalties; by professions in which all agree; by a ceremonial which all share; by customs and commands which all obey. He, therefore, who would wish to expel such influences either from Church or State, on the ground that they may alter (as alter they most certainly will) the opinions which, in their absence, the members of the community, left to follow at will their own speculative devices, would otherwise form, may know something of science or philosophy, but assuredly knows little of human nature.

232. If there are differences where we most agree, surely also there are agreements where we most differ. I like to think of the human race, from whatever stock its members may have sprung, in whatever age they may be born, whatever creed they may profess, together in the presence of the One Reality, engaged, not wholly in vain, in spelling out some fragments of its message. All share its being; to none are its oracles wholly dumb. And if both in the natural world and in the spiritual the advancement we have made on our forefathers be so great that our interpretation seems indefinitely removed from that which primitive man could alone comprehend, and wherewith he had to be content, it may be, indeed I think it is, the case that our approximate guesses are still closer to his than they are to their common Object, and that far as we seem to have travelled, yet, measured on the celestial scale, our intellectual progress is scarcely to be discerned, so minute is the parallax of Infinite Truth.

NOTE.

233. The permanent value which the results of the great ecclesiastical controversies of the first four centuries have had for Christendom, as compared with that possessed by the more transitory speculations of later ages, illustrates, I think, the suggestion

contained in the text. For whatever opinion the reader may entertain of the decisions at which the Church arrived on the doctrine of the Trinity, it is at least clear that they were not in the nature of explanations. They were, in fact, precisely the reverse. They were the negation of explanations. The various heresies which it combated were, broadly speaking, all endeavours to bring the mystery as far as possible into harmony with contemporary speculations, Gnostic, Neoplatonic, or Rationalising, to relieve it from this or that difficulty: in short, to do something towards ‘explaining’ it. The Church held that all such explanations or partial explanations inflicted irremediable impoverishment on the idea of the Godhead which was essentially involved in the Christian revelation. They insisted on preserving that idea in all its inexplicable fulness; and so it has come about that while such simplifications as those of the Arians, for example, are so alien and impossible to modern modes of thought that if they had been incorporated with Christianity they must have destroyed it, the doctrine of Christ’s Divinity still gives reality and life to the worship of millions of pious souls, who are wholly ignorant both of the controversy to which they owe its preservation, and of the technicalities which its discussion has involved.¹

Summary.

234. All men who reflect at all, interpret their experiences in the light of certain broad theories and preconceptions as to the world in which they live. These theories and preconceptions need not be explicitly formulated, nor are they usually, if ever, thoroughly self-consistent. They do not remain unchanged from age to age; they are never precisely identical in two individuals. Speaking, however, of the present age and of the general body of educated opinion, they may be said to fall roughly into two categories—which we may call respectively the Spiritualistic and the Naturalistic. In the Naturalistic class are included by common usage Positivism, Agnosticism,

¹[On this unoffending note Principal Fairbairn, writing as an expert theologian, has passed some severe comments (see “Catholicism, Roman and Anglican,” p. 356 *et seq.*). He seems to think the terms used in the definitions of Nicea and Chalcedon must, because they are technical, be therefore ‘of the nature of explanations’. I cannot agree. I think they were used, not to explain the mystery they were designed to express, but to show with unmistakable precision wherein the rival formula, which was so much more in harmony with the ordinary philosophic thought of the day, fell short of what was required by the Christian consciousness.]

Materialism, etc., though not always with the good will of those who make profession of these doctrines.

In estimating the value of any of these theories we have to take into account something more than their 'evidence' in the narrow meaning often given to that term. Their bearing upon the most important forms of human activity and emotion deserves also to be considered. For, as I proceed to show, there may, in addition to the merely logical incongruities in which the essence of inconsistency is commonly thought to reside, be also incongruities between theory and practice, or theory and feeling, producing inconsistencies of a different, but, it may be, not less formidable description.

In the first chapter I have endeavoured to analyse some of these incongruities as they manifest themselves in the collision between Naturalism and Ethical emotions. That there are emotions proper to Ethics is admitted on all hands. It is not denied, for instance, that a feeling of reverence for what is right—for what is prescribed by the moral law—is a necessary element in any sane and healthy view of things: while it becomes evident on reflection that this feeling cannot be independent of the origin from which that moral law is supposed to flow, and the place which it is thought to occupy in the Universe of things.

Now on the Naturalistic theory, the place it occupies is insignificant, and its origin is quite indistinguishable from that of any other contrivance by which Nature provides for the survival of the race. Courage and self-devotion are factors in evolution which came later into the field than e.g. greediness or lust: and they require therefore the special protection and encouragement supplied by fine sentiments. These fine sentiments, however, are merely a device comparable to other devices, often disgusting or trivial, produced in the interests of race-preservation by Natural Selection; and when we are under their sway we are being cheated by Nature for our good—or rather for the good of the species to which we belong.

The feeling of freedom is, on the Naturalist theory, another beneficent illusion of the same kind. If Naturalism be true, it is certain that we are not free. If we are not free, it is certain that we are not responsible. If we are not responsible, it is certain that we are exhibiting a quite irrational emotion when we either repent our own misdoings or reverence the virtues of other people.

There is yet a third kind of disharmony between the emotions permitted by Naturalism and those proper to Ethics—the emotions, namely, which relate to the *consequences* of action. We instinctively

ask for some adjustment between the distribution of happiness and the distribution of virtue, and for an ethical end adequate to our highest aspirations. The first of these can only be given if we assume a future life, an assumption evidently unwarranted by Naturalism ; the second is rendered impossible by the relative insignificance of man and all his doings, as measured on the scale supplied by modern science. The brief fortunes of our race occupy but a fragment of the range in time and space which is open to our investigations ; and if it is only in relation to them that morality has a meaning, our practical ideal must inevitably be petty, compared with the sweep of our intellectual vision.

With chapter II we turn from Ethics to Æsthetics ; and discuss the relation which Naturalism bears to the emotions aroused in us by Beauty. A comparatively large space is devoted to an investigation into the 'natural history' of taste. This is not only (in the author's opinion) intrinsically interesting, but it is a desirable preliminary to the contention that (on the Naturalist view of things) Beauty represents no permanent quality or relation in the world as revealed to us by Science. This becomes evident when we reflect (*a*) that could we perceive things as the Physicist tells us they are, we might regard them as curious and interesting, but hardly as beautiful ; (*b*) that differences of taste are notorious and, indeed, inevitable, considering that no causes exist likely to call into play the powerful selective machinery by which is secured an approximate uniformity in morals ; (*c*) that even the apparent agreement among official critics represents no identity of taste ; while (*d*) the genuine identity of taste, so often found in the same public at the same time, is merely a case of that 'tendency to agreement' which, though it plays a most important part in the general conduct of social life, has in it no element of permanence, and, indeed, under the name of *fashion*, is regarded as the very type of mutability.

From these considerations it becomes apparent that æsthetic emotion at its best and highest is altogether discordant with Naturalistic theory.

The advocates of Naturalism may perhaps reply that, even supposing the foregoing arguments were sound, and there is really this alleged collision between Naturalistic theory and the highest emotions proper to Ethics and Æsthetics, yet, however much we may regret the fact, it should not affect our estimate of a creed which, professing to draw its inspiration from reason alone, ought in no wise to be modified by sentiment. How far this contention

can be sustained will be examined later. In the meanwhile it suggests an inquiry into the position which that Reason to which Naturalism appeals occupies according to Naturalism itself in the general scheme of things.

According to the spiritual view of things, the material Universe is the product of Reason. According to Naturalism it is its source. Reason and the inlets of sense through which reason obtains the data on which it works are the products of non-rational causes; and if these causes are grouped under the guidance of Natural Selection so as to produce a rational or partially rational result, the character of this result is determined by our utilitarian needs rather than our speculative aspirations.

Reason, therefore, on the Naturalistic hypothesis, occupies no very exalted or important place in the Cosmos. It supplies it neither with a First cause nor a Final cause. It is a merely local accident ranking after appetite and instinct among the expedients by which the existence of a small class of mammals on a very insignificant planet is rendered a little less brief, though perhaps not more pleasurable, than it would otherwise be.

Chapter IV is a summary of the three preceding ones, and terminates with a contrasted pair of catechisms based respectively on the Spiritualistic and the Naturalistic method of interpreting the world.

This incongruity between Naturalism and the higher emotions inevitably provokes an examination into the evidence on which Naturalism itself rests, and this accordingly is the task to which we set ourselves at the beginning of Part II. Now on its positive side the teaching of Naturalism is by definition identical with the teaching of Science. But while Science is not bound to give any account of its first principles, and in fact never does so, Naturalism, which is nothing if not a philosophy, is in a different position. The essential character of its pretensions carries with it the obligation to supply a reasoned justification of its existence to any who may require it.

It is no doubt true that Naturalistic philosophers have never been very forward to supply this reasoned justification, yet we cannot go wrong in saying that Naturalistic theory, in all its forms, bases knowledge entirely upon experiences; and that of these experiences the most important are those which are given in the 'immediate judgments of the senses' and principally of vision.

A brief consideration, however, of this simple and common-

sense statement shows that two kinds of difficulty are inherent in it. In the *first* place, the very account which Science gives of the causal steps by which the object experienced (e.g. the thing seen) makes an impression upon our senses, shows that the experiencing self, the knowing 'I,' is in no immediate or direct relation with that object; and it shows further that the message thus conveyed by the long chain of causes and effects connecting the object experienced and the experiencing self, is essentially mendacious. The attempt to get round this difficulty either by regarding the material world as being not the object immediately experienced, but only an inference from it, or by abolishing the material world altogether in the manner of Berkeley, Hume, and J. S. Mill, is shown to be impracticable, and to be quite inconsistent with the teaching of Science, as men of science understand it.

In the *second* place, it is clear that we require in order to construct the humblest scientific edifice, not merely isolated experiences, but general principles (such as the law of universal causation) by which isolated experiences may be co-ordinated. How on any purely empirical theory are these to be obtained? No method that will resist criticism has ever been suggested; and the difficulty, insuperable in any case, seems enormously increased when we reflect that it is not the accumulated experience of the race, but the narrow experience of the individual on which we have to rely. It must be *my* experience for *me*, and *your* experience for *you*. Otherwise we should find ourselves basing our belief in these general principles upon our general knowledge of mankind past and present, though we cannot move a step towards the attainment of such general knowledge without first assuming these principles to be true.

It would not be possible to go further in the task of exposing the philosophic insufficiency of the Naturalistic creed without the undue employment of philosophic technicalities. But, in my view, to go further is unnecessary. If fully considered, the criticisms contained in this chapter are sufficient, without any supplement, to show the hollowness of the Naturalistic claim, and as it is with Naturalism that this work is mainly concerned, there seems no conclusive necessity for touching on rival systems of Philosophy.

As a precautionary measure, however, and to prevent a flank attack, I have in Part II, chapter II, briefly examined certain aspects of Transcendental Idealism in the shape in which it has principally gained currency in this country; while at the beginning

of the succeeding chapter I have indicated my reason for respectfully ignoring any other of the great historic systems of Philosophy.

The conclusion of this part of the discussion, therefore, is that neither in Naturalism, with which we are principally concerned, nor in Rationalism, which is Naturalism in the making, nor in any other system of thought which commands an important measure of contemporary assent, can we find a coherent scheme which shall satisfy our critical faculties. Now this result may seem purely negative; but evidently it carries with it an important practical corollary. For whereas the ordinary canons of consistency might require us to sacrifice all belief and sentiments which did not fully harmonise with a system rationally based on rational foundations, it is a mere abuse of these canons to apply them in support of a system whose inner weaknesses and contradictions show it to be at best but a halting and imperfect approximation to one aspect of absolute truth.

Chapter IV in Part II may be regarded as a parenthesis, though a needful parenthesis, in the course of the general argument. It is designed to expose the absurdity of the endeavour to make rationalising theories (as defined on pp. 177-183) issue not in Naturalism but in Theology. Paley's "Evidences of Christianity" is the best known example of this procedure; and I have endeavoured to show that, however valuable it may be as a supplement to a spiritualistic creed already accepted, it is quite unequal to the task of refuting Naturalism by extracting Spiritualism out of the Biblical narrative by ordinary historical and inductive methods.

With Part II, chapter IV ends the critical or destructive portion of the Essay. With Part III begins the attempt at construction. The preliminary stage of this consists in some brief observations on the Natural History of Beliefs. By the natural history of beliefs I mean an account of beliefs regarded simply as phenomena among other phenomena; not as premises or conclusions in a logical series, but as antecedents or consequents in a causal series. From this point of view we have to ask ourselves not whether a belief is true, but whence it arose; not whether it ought to be believed, but how it comes to be believed. We have to put ourselves, so to speak, in the position of a superior being making anthropological investigations from some other planet, or into the position we ourselves occupy when examining opinions which have for us only an historic interest.

Such an investigation directed towards what may roughly be described as the 'immediate beliefs of experience'—those arising from perception and memory—shows that they are psychical ac-

companiments of neural processes—processes which in their simpler form appear neither to possess nor to require this mental collaboration. Physiological co-ordination, unassociated with any psychical phenomena worthy to be described as perception or belief, is sufficient for the lower animals or for most of them; it is in many cases sufficient for man. Conscious experience and the judgments in which it is embodied seem, from this point of view, only an added and almost superfluous perfection, a finishing touch given to activities which often do excellently well with no such rational assistance.

Empirical philosophy in its cruder form would have us believe that by some inductive legerdemain there may be extracted from these psychological accidents the vast mass of supplementary beliefs actually required by the higher social and scientific life of the race. We have already shown as regards one great scientific axiom (the uniformity of Nature) that this is not logically possible. We may now say more generally that from the point of view of Natural History it is not what in fact happens. Not reasoning, inductive or deductive, is the true parent of this numerous offspring: we should be nearer the mark if we looked to Authority—using this as a convenient collective name for the vast multitude of psychological causes of belief, *not being also reasons for it*, which have their origin in the social environment, and are due to the action of mind on mind.

An examination into this subject carried out at considerable length in Part III, chapter II, serves to show not merely that this is so, but that, if society is to exist, it could not be otherwise. Reasoning no doubt has its place both in the formation of beliefs and in their destruction. But its part is insignificant compared with that played by Authority. For it is to Authority that we owe the most fundamental premises on which our reasonings repose; and it is Authority which commonly determines the conclusions to which they must in the main adapt themselves.

These views, taken in connection with the criticism on Naturalism contained in Part II, show that the beliefs of which Naturalism is composed must on its own principles have a non-rational source, and on any principles must derive largely from Authority: that Naturalism neither owes its origin to reason, nor has as yet been brought into speculative harmony with it. Why, then, should it be regarded as of greater validity than (say) Theology? Is there any relevant difference between them? and if not, is it reasonable to act as if there were?

One difference there undoubtedly is. About the judgments

which form the starting-point of Science there is unquestionably an *inevitableness* lacking to those which lie at the root of Theology or Ethics. There may be, and are, all sorts of speculative difficulties connected with the reality, or even the meaning, of an external world; nevertheless, our beliefs respecting what we see and handle, however confused they may seem on analysis, remain absolutely coercive in their assurance compared with the beliefs with which Ethics and Theology are principally concerned.

There is here no doubt a real difference—though one which the Natural History of beliefs may easily explain. But is it a relevant difference? Assuredly not. The coercion exercised by these beliefs is not a rational coercion. It is due neither to any deliberate act of reason, nor to any blind effect of heredity or tradition which reason *ex post facto* can justify. The necessity to which we bow, rules us by violence, not by right.

The differentiation which Naturalism makes in favour of its own narrow creed is thus an irrational differentiation, and so the great masters of speculative thought, as well as the great religious prophets, have always held.

And if no better ground for accepting as fact a material world more or less in correspondence with our ordinary judgments of sense-perceptions can be alleged than the practical need for doing so, there is nothing irrational in postulating a like harmony between the Universe and other Elements in our nature 'of a later, a more uncertain, but no ignobler growth'.

Nor can it be said that, in respect of distinctness or lucidity, fundamental scientific conceptions have any advantage over Theological for Ethical ones. Mr. Spencer has indeed pointed out with great force that 'ultimate scientific ideas,' like 'ultimate religious ideas,' are 'unthinkable'. But he has not drawn the proper moral from his discovery. If in the case of Science we accept unhesitatingly postulates about the material world as more certain than any reason which can be alleged in their defence; if the needs of everyday life forbid us to take account of the difficulties which seem on analysis to becloud our simplest experiences, practical wisdom would seem to dictate a like course when we are dealing with the needs of our spiritual nature.

We have now reached a point in the argument at which it becomes clear that the 'conflict between Science and Religion,' if it exists, is not one which in the present state of our knowledge can or ought to require us to reject either of these supposed incompat-

ibles. For in truth the difficulties and contradictions are to be found rather within their separate spheres than between them. The conflicts from which they suffer are in the main civil conflicts ; and if we could frame a satisfying philosophy of Science and a satisfying philosophy of Religion, we should, I imagine, have little difficulty in framing a philosophy which should embrace them both.

We may, indeed, go much further, and say that, unless it borrow something from Theology, a philosophy of Science is impossible. The perplexities in which we become involved if we accept the Naturalistic dogma that all beliefs ultimately trace their descent to non-rational causes, have emerged again and again in the course of the preceding argument. Such a doctrine cuts down any theory of knowledge to the root. It can end in nothing but the most impotent scepticism. Science, therefore, is at least as much as Theology compelled to postulate a Rational Ground or Cause of the world, who made *it* intelligible and *us* in some faint degree able to understand it.

The difficulties which beset us whenever we attempt to conceive how this Rational (and therefore Spiritual) cause acts upon or is related to the Material Universe, are no doubt numerous and probably insoluble. But they are common to Science and to Religion, and, indeed, are of a kind which cannot be avoided even by the least theological of philosophies, since they are at once suggested in their most embarrassing form whenever we try to realise the relation between the Self and the world of matter, a relation which it is impossible practically to deny or speculatively to understand.

It is true that at first sight most forms of religion, and certainly Christianity as ordinarily held, seem to have burdened themselves with a difficulty from which Science is free—the familiar difficulty of Miracles. But there is probably here some misconception. Whether or not there is sufficient reason for believing any particular Wonder recorded in histories, sacred or profane, can only be decided by each person according to his general view of the system of the world. But however he may decide, his real difficulty will not be with any supposed violation of the principle of Uniformity (a principle not always accurately understood by those who appeal to it), but with a metaphysical paradox common to all forms of religion, whether they lay stress on the ‘miraculous’ or not.

What is this metaphysical paradox? It is the paradox involved in supposing that the spiritual source of all that exists exercises ‘preferential action’ on behalf of one portion of his creation rather

than another ; that He draws a distinction between good and bad, and having created all, yet favours only a part. This paradox is implied in such expressions as ' Providence,' ' A Power that makes for Righteousness,' ' A Benevolent Deity,' and all the other phrases by which Theology adds something to the notion of the ' Infinite Substance,' or ' Universal Idea or Subject,' which is the proper theme of a non-theological Metaphysic.

In this preferential action, however, Science and Ethics seem as much interested as Theology. For, in the first place, it is worth noting that if we accept the doctrine of a First Cause immanent in the world of phenomena, the modern doctrine of Evolution almost requires us to hold that there is in the Universe a purpose being slowly worked out—a "striving towards something which is not, but which gradually becomes, and, in the fullness of time, will be".

But, in truth, much stronger reasons have already been advanced for holding that both Science and Ethics must postulate not merely a universal substance or subject, but a Deity working by what I have ventured to call ' preferential methods'. So far as Science is concerned, we have already seen that at the root of every rational process lies a non-rational one, and that the least unintelligible account which can be given of the fact that these non-rational processes, physical, physiological, and social, issue in knowledge is that to this end they were preferentially guided by Supreme Reason.

A like argument may be urged with even greater force in the case of Ethics. If we hold—as teachers of all schools profess to hold—that morality is a thing of intrinsic worth, we seem driven also to assume that the complex train of non-moral causes which have led to its recognition, and have at the same time engendered the sentiments which make the practice of it possible, have produced these results under moral—i.e. preferential—guidance.

But if Science and Ethics, to say nothing of *Æsthetics*, thus require the double presupposition of a Deity and of a Deity working by ' preferential' methods, we need feel no surprise if these same preferential methods have shown themselves in the growth and development of Theology.

The reality of this preferential intervention has been persistently asserted by the adherents of every religion. They have always claimed that their beliefs about God were due to God. The one exception is to be found in the professors of what is rather absurdly called Natural Religion, who are wont to represent it as the product of ' unassisted reason'. In face, however, of the arguments already

advanced to prove that there is no such thing as unassisted reason, this pretension may be summarily dismissed.

Though we describe, as we well may, this preferential action in matters theological by the word Inspiration, it does not follow, of course, that what is inspired is on that account necessarily true, but only that it has an element of truth due to the Divine co-operation with our limited intelligences. And for my own part I am unwilling to admit that some such element is not to be found in all the great religious systems which have in any degree satisfied the spiritual needs of mankind.

So far the argument has gone to show that the great body of our beliefs, scientific, ethical, æsthetic, and theological, form a more coherent and satisfactory whole in a Theistic than in a Naturalistic setting. Can the argument be pressed further? Can we say that those departments of knowledge, or any of them, are more coherent and satisfactory in a distinctively Christian setting than in a merely Theistic one? If so, the *a priori* presuppositions which have induced certain learned schools of criticism to deal with the Gospel narratives as if these were concerned with events intrinsically incredible will need modification, and there may even on consideration appear to be an *a priori* presupposition in favour of their general veracity.

Now it can, I think, be shown that the central doctrine of Christianity, the doctrine which essentially differentiates it from every other religion, has an ethical import of great and even of an increasing value. The Incarnation as dogma is not a theme within the scope of this work; but it may not be amiss, by way of Epilogue, to enumerate three aspects of it in which it especially ministers, as nothing else could conceivably minister, to some of the most deep-seated of our moral necessities.

(a) The whole tendency of modern discovery is necessarily to magnify material magnitudes to the detriment of spiritual ones. The insignificant part played by moral forces in the cosmic drama, the vastness of the physical forces by which we are closed in and overwhelmed, the infinities of space, time, and energy thrown open by Science to our curious investigations, increase (on the Theistic hypothesis) our sense of the power of God, but relatively impoverish our sense of His moral interest in His creatures. It is surely impossible to imagine a more effective cure for this distorted yet most natural estimate than a belief in the Incarnation.

(b) Again, the absolute dependence of mind on body, taught, and rightly taught, by empirical science, confirmed by each man's

own humiliating experience, is of all beliefs the one which, if fully realised, is most destructive of high endeavour. Speculation may provide an answer to physiological materialism, but for the mass of mankind it can provide no antidote; nor yet can an antidote be found in the bare theistic conception of a God ineffably remote from all human conditions, divided from man by a gulf so vast that nothing short of the Incarnation can adequately bridge it.

(c) A like thought is suggested by the 'problem of evil,' that immemorial difficulty in the way of a completely consistent theory of the world on a religious basis. Of this difficulty, indeed, the Incarnation affords no speculative solution, but it does assuredly afford a practical palliation. For whereas a merely metaphysical Theism leaves us face to face with a Deity who shows power but not mercy, who has contrived a world in which, so far as direct observation goes, the whole creation travails together in misery, Christianity brings home to us, as nothing else could do, that God is no indifferent spectator of our sorrows, and in so doing affords the surest practical alleviation to a pessimism which seems fostered alike by the virtues and the vices of our modern civilisation.

Genius, and the Production of Geniuses.

235. The truth is that to every genius there is a characteristic weakness, a defect to which it naturally leans, and into which, in those inevitable moments when inspiration flags, it is apt to subside. [1887.]

236. The development of genius, as of everything else, depends as much upon what it is now the fashion to call 'environment' as upon its innate capabilities. [1887.]

237. It is true, of course, that the influence of 'the environment' in moulding, developing, and stimulating genius within the limits of its original capacity is very great, and may seem, especially in the humbler walks of artistic production, to be all-powerful. But innate and original genius is not the creation of any age. It is a biological accident, the incalculable product of two sets of ancestral tendencies ; and what the age does to these biological accidents is not to create them, but to choose from them, to encourage those which are in harmony with its spirit, to crush out and to sterilise the rest. Its action is analogous to that which a plot of ground exercises on the seeds which fall upon it. Some thrive, some languish, some die ; and the resulting vegetation is sharply characterised, not because few kinds of seed have there sown themselves, but because few kinds have been allowed to grow up. Without pushing the parallel too far, it may yet serve to illustrate the truth that, as a stained window derives its character and significance from the absorption of a large portion of the rays which endeavour to pass through it, so an age is what it is, not only by reason of what it fosters, but as much, perhaps, by reason of what it destroys. We may conceive, then, that from the total but wholly unknown number

of men of productive capacity born in any generation, those whose gifts are in harmony with the tastes of their contemporaries will produce their best ; those whose gifts are wholly out of harmony will be extinguished, or, which is very nearly the same thing, will produce only for the benefit of the critics in succeeding generations ; while those who occupy an intermediate position will, indeed, produce, but their powers will, consciously or unconsciously, be warped and thwarted, and their creations fall short of what, under happier circumstances, they might have been able to achieve. . [1895.]

238. Is a due succession of men above the average in original capacity necessary to maintain social progress ?

If so, can we discover any law according to which such men are produced ?

I entertain no doubt myself that the answer to the first question should be in the affirmative. Democracy is an excellent thing ; but, though quite consistent with progress, it is not progressive *per se*. Its value is regulative, not dynamic ; and if it meant (as it never does) substantial uniformity, instead of legal equality, we should become fossilised at once. Movement may be controlled or checked by the many ; it is initiated and made effective by the few. If (for the sake of illustration) we suppose mental capacity in all its many forms to be mensurable and commensurable, and then imagine two societies possessing the same average capacity—but an average made up in one case of equal units, in the other of a majority slightly below the average and a minority much above it, few could doubt that the second, not the first, would show the greatest aptitude for movement. It might go wrong, but it would go.

The second question—how is this originality (in its higher manifestations called genius) effectively produced—is not so simple.

Excluding education in its narrowest sense—which few would regard as having much to do with the matter—the only alternatives seem to be the following :—

Original capacity may be no more than one of the ordinary variations incidental to heredity. A community may breed a minority thus exceptionally gifted, as it breeds a minority of men over six feet six. There may be an average decennial output of congenital geniuses as there is an average decennial output of congenital idiots—though the number is likely to be smaller.

But if this be the sole cause of the phenomenon, why does the

same race *apparently* produce many men of genius in one generation and a few in another? Why are years of abundance so often followed by long periods of sterility?

The most obvious explanation of this would seem to be that in some periods circumstances give many openings to genius, in some periods few. The genius is constantly produced; but it is only occasionally recognised.

In this there must be some truth. A mob orator in Turkey, a religious reformer in seventeenth-century Spain, a military leader in the Sandwich Islands, would hardly get their chance. Yet the theory of opportunity can scarcely be reckoned a complete explanation. For it leaves unaccounted for the *variety* of genius which has in some countries marked epochs of vigorous national development. Athens in the fifth and fourth centuries, Florence in the fifteenth and early sixteenth centuries, Holland in the later sixteenth and seventeenth centuries, are the typical examples. In such periods the opportunities of statesmen, soldiers, orators, and diplomatists, may have been specially frequent. But whence came the poets, the sculptors, the painters, the philosophers, and the men of letters? What peculiar opportunities had *they*?

The only explanation, if we reject the idea of a mere coincidence, seems to be that, quite apart from opportunity, the exceptional stir and fervour of national life evokes, or may evoke, qualities which in ordinary times lie dormant, unknown even to their possessors. The potential Miltons are 'mute' and 'inglorious' not because they cannot find a publisher, but because they have nothing they want to publish. They lack the kind of inspiration which, on this view, flows from social surroundings where great things, though of quite another kind, are being done and thought.

If this theory be true (and it is not without its difficulties), one would like to know whether these undoubted outbursts of originality in the higher and rarer form of genius are symptomatic of a general rise in the number of persons exhibiting original capacity of a more ordinary type. If so, then the conclusion would seem to be that some kind of widespread exhilaration or excitement is required in order to enable any community to extract the best results from the raw material transmitted to it by natural inheritance. . . . [1908.]

Golf.

[*Extracts 239 to 244 are taken from the article "The Humours of Golf," contributed to the "Badminton Library of Sports and Pastimes," 1890.*]

239. Gradually round all the greater games there collects a body of sentiment and tradition unknown to or despised by a profane public, but dear to their votaries, and forming a common bond of union among those who practise their rites. This tradition relates partly to memorable contests and the deeds of bygone heroes, partly to the changes which time brings about in the most ancient sports not less than in the most memorable institutions. But it does not disdain to concern itself with less important matters. Even games are not to be regarded as wholly serious: they have their lighter side, and he must be unhappily constituted who cannot relieve the graver labours in which his favourite pursuit involves him by watching the humours and comparing notes on the proceedings of others who are similarly occupied.

Now golf gives unrivalled opportunities for investigations of this description. There is more to observe in it than in other games, and there are more opportunities for observing. This is so because the conditions under which golf is played differ fundamentally from those of almost any other form of outdoor exercises, and every difference lends itself naturally to the promotion of an infinite variety of characteristic humours.

Consider, for instance, the fact that while the performers at other games are restricted within comparatively narrow limits of age, golf is out of relation with no one of the seven ages of man. Round the links may be seen in endless procession not only players of every degree of skill and of every social condition, but also of every degree of maturity and immaturity. There is no reason, in the nature of things, why golf should not be begun as soon as you can walk, and continued as long as you can walk; while, as a matter of fact, it frequently is so begun, and always is so continued. What an ex-

cellent variety does not this give to the game, as a subject of observation, and how humorously is that variety heightened and flavoured by the fact that age and dexterity are so frequently bestowed in inverse proportion! You may see at one teeing ground a boy of ten driving his ball with a swing which no professional would despise, and at the next a gentleman of sixty, recently infected with the pleasing madness, patiently 'topping' his ball through the green under the long-suffering superintendence of a professional adviser.

No greater proof, indeed, can be imagined of the fascinations of the game than the fact that so many of us are willing to learn it—and, what is more, to learn it in public—at a period of life when even competitive examinations have ceased to trouble. Lord Chancellor Campbell, we are told, took dancing lessons at the mature age of thirty-four, in order, as he said, to "qualify him for joining the most polite assemblies". But he took them in privacy, under an assumed name, and with every precaution that might ensure his maintaining his incognito. Would even Lord Chancellor Campbell have taken dancing lessons if the scene of his tuition had been a public golf links; if the *chassés* and *coupés* of which he speaks had to be attempted before a miscellaneous and highly critical public; if his first ineffectual efforts at "figuring on the light fantastic toe" (I still quote the noble and learned lord) had been displayed to a mixed assemblage of professional and amateur dancers? I trow not. Rather, a thousand times rather, would he have remained deficient in any graces lighter than those required for special pleading, and renounced for ever the hope of shining in "the most polite assemblies"! Yet, after all, no ordeal less than this has been gone through by those of us who have first become golfers in mature life. We have seen ourselves, often at an age when other people are leaving off the games they learned in their youth, laboriously endeavouring to acquire a game which certainly not less than any other punishes with eternal mediocrity those who too long defer devoting themselves to its service. We have been humiliated in the eyes of our opponent, in the eyes of our caddie, in the eyes of our opponent's caddie, and in our own eyes by the perpetration of blunders which would seem almost incredible in narration. We have endeavoured time after time to go through the same apparently simple and elementary set of evolutions. Time after time we have failed. We have, if playing in a foursome, apologised to our partner until we were sick of making excuses and

he was sick of listening to them. Yet who has ever been repelled by this ordeal from continuing his efforts until age or sickness incapacitate him? Who, having once begun, has been found to turn back? It might indeed be supposed that, if before beginning all that had to be gone through were fully realised, our greens would be emptier than they are. But a splendid confidence, born of impenetrable ignorance, veils his future from the eyes of the beginner.

240. Since golf, when it has been once begun, exercises this fatal fascination upon its votaries, it is perhaps fortunate that of all games it appears to the uninitiated to be the most meaningless. A *mêlée* at football may appear to involve a perfectly unnecessary expenditure of energy and a foolish risk of life and limb. But even the most ignorant can see what it is all about. Rackets and tennis, again, at once strike the beholder as being games which require great quickness of eye and great dexterity of hand. But there appears to be something singularly inane and foolish about a game of golf. Two middle-aged gentlemen strolling across a links followed by two boys staggering under the burden of a dozen queer-shaped implements, each player hitting along his own ball for no apparent object, in no obvious rivalry, and exercising in the process no obvious skill, do not make up a specially impressive picture to those who see it for the first time; and many are the curious theories advanced by the ignorant to explain the motives and actions of the players.

241. It is hard that a game which seems to those who do not play it to be so meaningless should be to those who do play it not only the most absorbing of existing games, but occasionally in the highest degree irritating to the nerves and to the temper. The fact itself will, I apprehend, hardly be denied, and the reason I suppose to be this, that as in most games action is rapid and more or less unpremeditated, failure seems less humiliating in itself, and there is less time to brood over it. In most games—e.g. cricket, tennis, football—effort succeeds effort in such quick succession that the memory of particular blunders is immediately effaced or deadened. There is leisure neither for self-examination nor for repentance. Even good resolutions scarce have time to form themselves, and as soon as one difficulty is surmounted, mind and body have to brace themselves to meet the next. In the case of golf it is far otherwise. The

player approaches his ball with every circumstance of mature deliberation. He meditates, or may meditate, for as long as he pleases on the precise object he wishes to accomplish and the precise method by which it may best be accomplished. No difficulties are made for him by his opponent; he has no obstacles to overcome but those which are material and inanimate. Is there not, then, some natural cause for irritation when, after every precaution has been taken to insure a drive of 150 or 180 yards, the unfortunate player sees his ball roll gently into the bottom of a bunker some twenty yards in front of the teeing ground and settle itself with every appearance of deliberate forethought at the bottom of the most inaccessible heel-mark therein? Such an event brings with it not merely disaster, but humiliation; and, as a last aggravation, the luckless performer has ample leisure to meditate over his mishap, to analyse its causes, to calculate the precise effects which it will have on the general fortunes of the day, and to divine the secret satisfaction with which his opponent has observed the difficulties in which he has so gratuitously involved himself. No wonder that persons of irritable nerves are occasionally goaded to fury. No wonder that the fury occasionally exhibits itself in violent and eccentric forms. Not, however, that the opponent is usually the object or victim of their wrath. He is too obviously guiltless of contributing to a 'foozle' to permit even an angry man to drag him into his quarrel with the laws of dynamics. It is true that he may have the most extraordinary and unmerited luck. According to my experience, opponents who are winning usually have. But still he can hardly be blamed because the man he is playing with 'tops' his ball or is 'short' with his putts. Let him only assume an aspect of colourless indifference or hypocritical sympathy, and the storm will in all probability not break over *him*.

Expletives more or less vigorous directed against himself, the ball, the club, the wind, the bunker, and the game, are therefore the most usual safety-valve for the fury of the disappointed golfer. But bad language is fortunately much gone out of use; and in any case the resources of profanity are not inexhaustible. Deeds, not words, are required in extreme cases to meet the exigencies of the situation; and, as justice, prudence, and politeness all conspire to shield his opponent from physical violence, it is on the clubs that under these circumstances vengeance most commonly descends.

242. While, on the whole, playing through the green is the part

of the game most trying to the temper, putting is that most trying to the nerves. There is always hope that a bad drive may be redeemed by a fine approach shot, or that a 'foozle' with the brassy may be balanced by some brilliant performance with the iron. But when the stage of putting-out has been reached, no further illusions are possible—no place for repentance remains: to succeed in such a case is to win the hole; to fail, is to lose it. Moreover, it constantly happens that the decisive stroke has to be made precisely at a distance from the hole such that, while success is neither certain nor glorious, failure is not only disastrous but ignominious. A putt of a club's length which is to determine not merely the hole but the match will try the calmness even of an experienced performer, and many there are who have played golf all their lives whose pulse beats quicker when they have to play the stroke. No slave ever scanned the expression of a tyrannical master with half the miserable anxiety with which the performer surveys the ground over which the hole is to be approached. He looks at the hole from the ball, and he looks at the ball from the hole. No blade of grass, no scarcely perceptible inclination of the surface, escapes his critical inspection. He puts off the decisive moment as long, and perhaps longer, than he decently can. If he be a man who dreads responsibility, he asks the advice of his caddie, of his partner, and of his partner's caddie, so that the particular method in which he proposes to approach the hole represents not so much his own individual policy as the policy of a Cabinet. At last the stroke is made, and immediately all tongues are loosened. The slowly advancing ball is addressed in tones of menace or entreaty by the surrounding players. It is requested to go on or stop; to turn this way or that, as the respective interests of each party require. Nor is there anything more entertaining than seeing half a dozen faces bending over this little bit of moving gutta-percha which so remorselessly obeys the laws of dynamics, and pouring out on it threatenings and supplications not to be surpassed in apparent fervour by the devotions of any fetish worshippers in existence.

The peculiar feeling of nervousness which accompanies 'putting' is of course the explanation of the familiar experience that, when nothing depends upon it, it is quite easy to 'hole' your ball from a distance which makes success too often impossible when the fortunes of the game are at stake. "How is it, dad," said a little girl who was accompanying her father round the course—"how is it that when they tell you that you have *two* to win, you always do it

in *one*, and that when they say you have *one* to win you always do it in *two*?" In that observation lies compressed the whole philosophy of putting.

It might be thought that among the 'differentia' of golf the conscientious annalist would have to enumerate the facilities for fraud which the conditions under which the game is played would seem to afford. The whole difficulty of a stroke depending as it so often does entirely upon the 'lie' of the ball, which may be altered by an almost imperceptible change in its position, it might appear that there was large scope for the ingenious player to improve his chances of victory by methods not recognised in the rules of the game. As a matter of fact, however, this is not so. In the first place, this is no doubt because golfers are an exceptionally honest race of men. In the next place, if there are any persons of dubious morals among them, they probably reflect that, as they are accompanied by caddies, it would be hardly possible to play any tricks except by the connivance of that severe but friendly critic. It is not probable that the connivance would be obtained, and it is quite certain that in the long run secrecy would not be observed by the confidant. Honesty under these circumstances is so obviously the best policy that the least scrupulous do not venture to offend.

243. But what account of the points in which golf differs fundamentally from other games, what study of its peculiar humours would be complete which did not give a place of honour to the institution of *caddies*? Wherever golf exists there must the caddie be found; but not in all places is he a credit to the great cause which he subserves. There are greens in England—none, I rejoice to think, in Scotland—where, either because golf has been too recently imported or because it suits not the genius of the population, many of the caddies are not only totally ignorant of the game, which is bad, but are wholly uninterested in it, which is far worse. They regard it as a form of lunacy, harmless to the principals who pay, and not otherwise than beneficial to the assistants who plenteously receive, but in itself wearisome and unprofitable. Such caddies go far to spoil the sport. For my own part I can gladly endure severe or even contemptuous criticism from the ministering attendant. I can bear to have it pointed out to me that all my misfortunes are the direct and inevitable result of my own folly; I can listen with equanimity when failure is prophesied of some stroke I am attempting, and can

note unmoved the self-satisfied smile with which the fulfilment of the prophecy is accentuated ; but ignorant and stupid indifference is intolerable. A caddie is not, and ought not to be, regarded as a machine for carrying clubs at the rate of a shilling a round. He occupies, or ought to occupy, the position of competent adviser or interested spectator. He should be as anxious for the success of his side as if he were one of the players, and should watch each move in the game with benevolent if critical interest, always ready with the appropriate club, and, if need be, with the appropriate comment.

244. No two men use their clubs alike ; no two men deal in the same way or in the same temper with the varying changes or chances of the game. And this is one, though doubtless only one, among the many causes which make golf the most uniformly amusing amusement which the wit of man has yet devised.

A tolerable day, a tolerable green, a tolerable opponent, supply, or ought to supply, all that any reasonably constituted human being should require in the way of entertainment. With a fine sea view, and a clear course in front of him, the golfer should find no difficulty in dismissing all worries from his mind, and regarding golf, even it may be very indifferent golf, as the true and adequate end of man's existence. Care may sit behind the horseman, she never presumes to walk with the caddie. No inconvenient reminiscences of the ordinary workaday world, no intervals of weariness or monotony interrupt the pleasures of the game. And of what other recreation can this be said ? Does a man trust to conversation to occupy his leisure moments ? He is at the mercy of fools and bores. Does he put his trust in shooting, hunting, or cricket ? Even if he be so fortunately circumstanced as to obtain them in perfection, it will hardly be denied that such moments of pleasure as they can afford are separated by not infrequent intervals of tedium. The ten-mile walk through the rain after missing a stag ; a long ride home after a blank day ; fielding out while your opponents score 400, cannot be described by the most enthusiastic deer-stalker, fox-hunter, or cricketer as otherwise than wearisome episodes in delightful pursuits. Lawn-tennis, again, is not so much a game as an exercise, while in real tennis or in rackets something approaching to equality of skill between the players would seem to be almost necessary for enjoyment. These more violent exercises, again, cannot be played with

profit for more than one or two hours in the day. And while this may be too long for a man very hard worked in other ways, it is too short for a man who wishes to spend a complete holiday as much as possible in the open air.

Moreover, all these games have the demerit of being adapted principally to the season of youth. Long before middle life is reached, rowing, rackets, fielding at cricket, are a weariness to those who once excelled at them. At thirty-five, when strength and endurance may be at their maximum, the particular elasticity required for these exercises is seriously diminished. The man who has gloried in them as the most precious of his acquirements begins, so far as they are concerned, to grow old; and growing old is not commonly supposed to be so agreeable an operation in itself as to make it advisable to indulge in it more often in a single lifetime than is absolutely necessary. The golfer, on the other hand, is never old until he is decrepit. So long as Providence allows him the use of two legs active enough to carry him round the green, and of two arms supple enough to take a 'half swing,' there is no reason why his enjoyment in the game need be seriously diminished. Decay no doubt there is; long driving has gone for ever; and something less of firmness and accuracy may be noted even in the short game. But the decay has come by such slow gradations, it has delayed so long and spared so much, that it is robbed of half its bitterness.

245. The first steps in golf are in some respects the most important, and it is very easy, in the early period of golfing education, to get into tricks and faults of style which will for ever prevent the player from reaching the highest excellencies of the game. I myself belong to that unhappy class of beings for ever pursued by remorse, who are conscious that they threw away in their youth opportunities that were open to them of beginning the game at a time of life when alone the muscles can be attuned and practised to the full perfection required by the most difficult game that perhaps exists. Nevertheless, as I am talking to those who have a chance of beginning the game in their early youth, I may say that though much is lost, and lost for ever, by leaving neglected the opportunities of early years, yet none need despair, and if they will only set themselves to work in a businesslike spirit to learn to play the game as alone it ought to be played, they may hope to reach, not perhaps the highest degree of excellence, but a degree of excellence which will give great satisfaction to themselves and considerable embarrassment to their opponents.

I watch with satisfaction the gradual Scottification of England by this great golfing propaganda. The English are a great race, but they are not

a race, apparently, very quick to learn, or very quick to adopt all the good things within their reach. Because I may point out to them that golf has been played in Scotland from time immemorial, that it appears in our Scotch Acts of legislation as far back, I think, as the beginning of the fifteenth century—1430, or thereabouts—and that it was found necessary, in the wisdom of the Scotch Legislature, in the early history of the game, to legislate against it being played because it prevented the Scotch learning archery in order to fight the English, and that at a rather later stage of the game it was found necessary to legislate against it because it prevented Scotchmen attending with sufficient regularity in the parish church. I only mention these facts, well known in golfing history, to point out how long it has been the pastime, passionately pursued, on the other side of the Tweed, and for how many centuries the English have deliberately deprived themselves of what they are now beginning to discover is one of the greatest solaces of life. But although they have learnt the lesson late, they appear bent on learning it thoroughly, and if I can form any inference from the daily increasing number of golfing courses which on the sea coast and inland, on land suitable and on lands unsuitable, under circumstances favourable and under circumstances unfavourable, are springing up in every part of the country, I have to recognise with a feeling of national pride, but at the same time with some feeling of national dismay, that the time cannot be far off when Scotland will have to yield to England in the excellence of its players, and that the smaller population of the country which has so long been fostering this game will not be able to compete on equal terms with the legions which England will be able to bring into the field.

[1894.]

246. My firm conviction is that there is no public interest of greater importance than the public interest of providing healthy means of recreation for all classes in the community. We rightly and properly spend a great deal of thought in finding means for restricting within reasonable limits the working hours of the community. But, after all, when you have diminished the working hours of the community, with whatever class of the community you are dealing, you leave the more time to be spent in recreation, and it is just as difficult—it is more difficult—very often to find good recreation than it is to find remunerative employment.

Now, I have a strong view as to the place which golf takes among the reasonable recreations of mankind. There is an old, and in some respects a wise, adage, which tells us that there is no disputing about tastes, and in one sense that adage is true. It is impossible to compare the abstract merits of things so different—arts so different, for instance, as those of music and painting. In the same way it is impossible reasonably to compare the abstract and intrinsic merits of games so different, for example, as golf and cricket. On subjects of that kind I am prepared to put aside all disputa-

tions. I mean to argue—I have often argued, and I shall be prepared to argue in the future—that if you come to these games in the concrete, if you are asked how each is fitted to do that which the game is intended to do, namely, to supply recreation for the busy, then I think there is no comparison between the two great games that I have mentioned, and I am prepared on any platform and on any occasion to uphold the rights and claims of golf. I quite acknowledge that as a spectacular game there is no comparison between the two. It is impossible at golf to have arrangements by which at present, in London and in most of the great provincial centres of England, you may have a body of spectators as numerous as that of a good-sized country town to congregate without difficulty and in a position to watch the minutest vicissitudes, the most delicate refinements of play between two great county or international elevens. Golf can present nothing like that. . . . I acknowledge that as a spectacular game cricket has the advantage.

But, after all, the game is for the players of the game. The game primarily exists not for those who look on, but for those who act; not for the spectators, but the participators in its pleasures; and from that point of view it appears to me that on almost all counts, under almost all heads, golf has the advantage. To begin with, cricket is not a game for the busy. A great match takes three days. No busy man, except on rare occasions, has three days to give to a great match. Still less has he time to give either the requisite practice to enable him to do himself justice when these three days arrive. In the second place, cricket is not for the middle-aged, still less for those advanced in years. Cricket loses its charm when a man reaches middle life, and finds that he can no longer stoop to field a ball with his old agility, or run between the wickets with his old speed; but golf, while itself pre-eminently a game at which elasticity of muscle and litheness of limb produce their natural and legitimate fruits, is a game at which the middle-aged and those who are past middle life can derive pleasure not less poignant, not less keen, than they did in the first flush of their youth. The length of the drive may diminish, the length of the handicap may increase, but though the player has to acknowledge that he no longer possesses his ancient cunning, though young heroes occupy the field where once it may be he excelled, still he can go round the old course with undiminished joy, gain health, gain recreation, gain pleasure with no less success and no less ample measure than he did in the earlier years of his golfing career. This has sometimes been used as an argument by the young, and I will add by the ignorant, against the pre-eminent merits of our national game. It is perfectly true that if golf was an art which a man might pick up at his will when all other means of enjoyment had left him, a pastime which he could begin with success in his old age, a game of that sort can probably never rank in the first class of games; and those who think that golf may be so described show themselves totally ignorant of the

game which they are criticising, and they have only got to carry out their own precepts, and to attempt after middle life to learn the great mysteries of the goddess of golf to discover how great is their mistake, how fatal their blunder has been in too long delaying their introduction to joys which they might have enjoyed in the fullest measure had they begun earlier. [1899.]

247. Golf and politics are rival and antagonistic subjects, and it is quite impossible for any man to play golf to his own satisfaction or to the satisfaction of those who have the misfortune to look at his performance if he is occupied the whole week with politics, just as if he occupies the whole week in politics he does not find much time to deal with the more important subject which brings us all here this afternoon. I imagine that to an audience like this it is quite unnecessary for me to say anything in praise of golf. As a Scotchman my heart swells with pride when I reflect that it is from Scotland that the infection has spread, not merely throughout the whole of the United Kingdom, but through every part of the world where the English tongue is spoken. You will find in the most unexpected places—places where the sand is to be found everywhere but in the bunker, and where the greens are innocent of grass—enthusiastic golfers of Scottish and English descent. You will find them playing under the most unfavourable circumstances and looking back with a longing memory to the magnificent greens of their native country. . . . This I know, that the growth of these golf courses in the neighbourhood of London has done more than anything else in the last ten or fifteen years to make life pleasant and life healthy to the busy workers in the Metropolis. I rejoice when I hear of any new golf course which is opened within twenty or thirty miles of London, because I know that it is impossible for the supply to exceed the demand, and that each new golf course which is opened—a golf course like this with every amenity of scenery and with every advantage of judicious laying out—I know that it will not only find persons ready to take advantage of it, but it will create its own market in a very short time, and be crowded on every day in which the workers of this country can find leisure. Those whose energy and whose enterprise have brought these courses into existence not only provide for themselves a great fund of pleasure, but in my opinion they perform a great social kindness, a great social part. . . . [1903.]

248. I am quite certain that there has never been a greater addition to the machinery of the lighter side of civilisation than that supplied by the game of golf. It has been borrowed—I say it with pardonable pride as a Scotchman—from the north of the Tweed, and it has been borrowed with admirable results in every way. . . . I earnestly hope that everybody

interested in the furtherance of the game will do their best to extend it not only to the class who chiefly enjoy it now, but to every class of the community who has the opportunity and advantage of having a Saturday half-holiday which he would like to spend in the open air in one of the healthiest and most delightful methods of enjoying the beauties of Nature and the pleasures of exercise that the wit of man has yet contrived to invent. . . . [1909.]

Huxley.

249. I gladly welcome the opportunity which the managers of this meeting have given me of lending such support as I can to the proposals which have been laid before you, for Professor Huxley was a man who has many titles to our gratitude. I need not again dwell on what your chairman has said with regard to Professor Huxley's services as a teacher, and to the services which he constantly gave to the Government of the day in lending his great talents to any investigations which were required of him. But, putting all these relatively subordinate matters out of account, Professor Huxley, as a man of letters and as a man of science, surely deserves from his fellow-countrymen some permanent memorial. Every one whom I am addressing is probably well acquainted with those works which, quite apart from the matter which they contained, have earned for Professor Huxley from all good judges the reputation of being a master of clear, of lucid, and of vigorous exposition, not easily to be matched in the whole gallery of literature. Lord Kelvin, in his observations, and others far more qualified than I am to speak on this subject, have given some indication of the great extent of the scientific labours and discoveries which will always be associated with Professor Huxley's name. For my own part, however, if I were to try to choose among the many titles to our gratitude which he possesses, I am not sure that I should seek for it either in his literary performances, distinguished though they were, or in the series of scientific discoveries which have given him so distinguished a place among English biologists.

It appears to me that Professor Huxley has another claim, at least as great, upon the gratitude of those who were born in a generation subsequent to that of Darwin. I take it that the great scientific fact of the latter half of the nineteenth century is the establishment of the doctrine of evolution upon a scientific basis. I do not pretend for a moment that in his labours in that direction Huxley could be put on a level with the great scientific originator of the doctrine of the "Origin of Species," or with a very different but eminent man, Mr. Herbert Spencer, who occupied so remarkable a position on the border land between science and philosophy. But this, I think, may truly be said, that in the great scientific crisis, or in the critical period of scientific history, as I prefer to call it, which followed the publication of the "Origin of Species," in 1859, the man who did more than any other man, perhaps, to stimulate public interest in the subject, to bring into

line all the younger scientific thinkers of the day, to inspire them with his ardour, with his beliefs, and with his convictions, was probably Huxley. That is no small title to fame. If it be the fact, as I think it is, that it is now the common property of all educated men to look on this material world in which we live from the evolutionary standpoint; if that is a matter of common knowledge, belief, and conviction, as I think it is, we owe that, not to the great original investigators who started the theory, but to those who, like Professor Huxley, did so much by their scientific discoveries to support it, and even more by their preaching and example to spread it among all classes of their fellow-countrymen. There were other questions never far absent from the mind of Professor Huxley, as anyone who knows his work will admit, on which he has left few positive results, and concerning which differences of opinion exist. But there ought to be no difference of opinion as to that great claim on our consideration; and that, even if it stood alone, dissociated from his literary and strictly scientific work, would, in my judgment, be quite sufficient justification for this meeting, and for us to use every exertion to carry into effect the resolution which it is my honour and duty to second. . . . [1895.]

International Good Will.

250. Neither do I think that we are animated—I hope we are not animated—by any spirit of jealousy against other nations. Let us lay to heart this doctrine, that what is good for one is not necessarily bad for the other, and that in international as well as in national matters we ought not to regard ourselves as composed of a series of units with hostile interests which cannot be reconciled and which must be settled by the arbitrament of war. On the contrary, we ought to feel ourselves bound together by mutual interests ; and what helps one helps the other, what adds to the prosperity of one adds to the prosperity of the other, and what promotes the common civilisation cannot but be good for every member of every State by which that civilisation is shared. . . . [1896.]

251. There is one danger of which I cannot speak in terms so sanguine. It is a danger I have before referred to—even, I think, in this very place—a danger arising from the decay to which many Oriental countries seem subject when brought into close contact and conflict with nations whose institutions and whose character are framed on the Western model. From the east of Asia to the west of Africa you will find, if you care to look at your map, one case after another of the danger I have described, a danger which has menaced Europe ever since England and France came to blows 150 years ago over the falling Empire of the Moguls. I need not go into details on the subject. I need not explain to you, for you probably know as well as I do, how the weaker Power first leans on one European Government, then upon another European Government, intrigues with both, does everything to bring the two into conflict in the hope that it may come out the better for it, and how great is the danger which this carries with it to European peace. Nothing can meet that danger but the growing sense among the nations of Europe that they must work together to produce common harmony of action, and that the best way to attain that result is by an open and frank diplomacy with each other. We may get depressed, we sometimes must get depressed, over the pettiness of the causes which threaten the unity of Europe ; but yet let us only mark with a candid eye the progress of public opinion through these last two or three generations, and I think we shall see growing up that international spirit—which shows itself, for example, in such treaties as the treaty of arbitration we have just

concluded with France—which makes every European Power feel that it is committing a crime against civilisation if it unnecessarily plunges the world into war, and that the only method by which that incalculable disaster is to be avoided is by either submitting the questions in dispute to some impartial tribunal, some tribunal whose arbitrament shall be taken as final, or by that frank and free interchange of view which in public, as in private life is the surest and most certain way of avoiding misunderstandings. [1903.]

252. I am an optimist in regard to international relations in the future. I believe the great work—dating back for many years, and which the late Government had the good fortune greatly to develop—of international arbitration, has already prevented, and will in the future prevent more and more, wars which do not spring out of intolerable wrong or causes which a nation feels cannot be dealt with by any third party or any arbitrator, however well intended. These wars are few, and they are diminishing; but others arising out of smaller matters of friction which may defeat the best-intentioned Government will be more and more dealt with in the future by those principles which have been embodied in the growing number of cases which I rejoice to think have been made the subject of international arrangement. [1908.]

France.

253. My lords and gentlemen, the Speaker of the House of Commons has just reminded us that we are gathered here together in a hall which dates back to the son of the great Conqueror who came over from French shores to found a dynasty in this country. This was 800 years ago, and it is a melancholy reflection to think how many of those 800 years have been spent between the dwellers on either side of the Channel either in mutual suspicion or distrust, or in active hostilities, and how few of them have been spent in warm co-operation and unclouded friendship. Yet even looking back upon that past, marked as it is by perpetually recurring conflicts, I would not speak of it on this, or, indeed, on any other occasion, in too gloomy a vein, for, after all, what the two nations forget is the cause of their differences, what they remember are the great deeds of heroism which have rendered both of them illustrious. And if I may add one further reflection, it is this—that through peace and through war, in years of friendship as in years of hostility, the mutual influence of the two countries one upon another, of their modes of thought, of their civilisation, of their art, of their philosophy, that has gone on unchanged through the centuries, I would venture to hope, indeed, I firmly believe, to the advantage both of the one and of the other; and the very difference of temperament which separates these closest of neighbours

has been, of itself, one of the causes why each has been to the other of such infinite service in the cause of the development of national culture.

My lords, ladies, and gentlemen, there have been times in history when such a gathering as this, and such an occasion as the present, would have been regarded, not merely as a sign of the friendship between too great nations, but as a hidden menace to other communities. There have been times when the idea of national friendship, except for the purpose of annoying some third party, hardly came within the view of the practical politician. But glad I am to think that those days are far gone. We are gathered here to celebrate those whose profession is war, and whose main business it is to be prepared for war at all times and on all occasions. Yet I, for my part, should hesitate to say that, under modern conditions, it is the war-like forces of great commercial communities which are the cause or occasion of war, or the cause or occasion of the fear of war in others. It may seem a paradox—I advance it as a paradox, though one easy of defence—so far as I can observe the forces which make for peace or war in this our great Western civilisation, you will find them on the platform, you will find them in the Press, you will find them, perhaps, even in the professorial chair; I do not think you will find them in the great defensive forces which nations have to keep up in order to preserve their independence and their honour.

These are the great guarantees of peace in my opinion, and so far from regarding this welcome which we have given to the naval forces of our nearest neighbour, so far, I say, from regarding that welcome as in itself an indication or forecast of troubles that are to be, I take precisely the other view, and I regard this gathering as the harbinger of peace—of peace in the East, of peace in the West, of peace all the world over. And I am confident that no greater security for that greatest of all human good can be found than in the warm and the perpetual friendship of two great neighbours, who, in the past, have found themselves too often divided, but in the future will, I believe, always be able to feel that their interests, their world interests are identical, that they have no rivalries over which to fight, that each has a great mission to perform, and that each can perform it best under those peaceful conditions of which meetings like this are the greatest security. My lords, ladies, and gentlemen, I ask you to fill your glasses and drink the health of the French Fleet. . . . [1905.]

254. For three centuries—more centuries—there has been an inter-communication of ideas between Britain and France which has profoundly modified, as I believe, the history of ideas in the two countries. What we have gained from French literature, French art, and French criticism is known to all. It is not my business to ask whether France may not, in her turn, have gained much from English ideas. But let us not tolerate that this interchange of ideas and of influences should remain in the ab-

stract sciences, in art, and in literature alone. Let it be our business to see that it corresponds to the practical business of life, to international relations in their broadest sense, to the effect which one great country may have upon another. I can assure all the guests who meet us to-night, who have come over, and whom we are delighted to honour—I can assure them that they will not easily exaggerate the pleasure that we have derived from their presence this evening. We take it not as a barren mark of friendship, of international amity that may have sprung up in a moment and may be destined to perish in a moment. We take it as a sign that it is the deliberate and fixed intention of these two great neighbouring countries to do what they can to place upon a permanent basis some organisation which shall prevent those causes of petty friction which, petty though they be, may give rise to events tragical in their character and permanent in their fatal consequences. And I rejoice to think that we have met here, not in a spirit of Utopian folly, not with the notion that any meeting with members of different Houses of Parliament or different representative assemblies can, by their mere *fiat*, bring peace upon the world—no such folly suggests itself to our mind: but I can assure M. d'Estournelles de Constant and all our guests assembled here to-night that His Majesty's Government—and I believe His Majesty's Opposition—are alike determined that, if we can contrive some practical method by which these small diseases may be prevented from developing into fatal maladies, we shall co-operate gladly with him. I do not doubt that some such happy issue will be the result of this meeting to-night.

[1903.]

Germany.

255. You have invited me, partly as a politician, partly as a philosopher, to say something for German readers upon Anglo-German relations. I fear that philosophers have little to say about the question, and that politicians may easily say too much; it is therefore with great misgiving that I comply with your invitation. I may easily do harm; I cannot think it likely that I shall do much good. But, as you appeal to me, I will make the attempt.

Let me at once say that I do not propose to adopt the attitude either of a judge or of a critic. I may be able to explain, I may be able to diminish misunderstanding. I am by no means confident that I shall succeed, but it is the only attempt worth making. If I can present the English point of view clearly and without offence to your readers, it may do something, however slight, to mitigate existing evils in so far as these are due to want of mutual comprehension.

I use the phrase "English point of view" without hesitation; for

I believe that in this matter there is only one English point of view. I do not of course mean that every statement I am going to make is consciously accepted by every Englishman, nor, if it be accepted, that all Englishmen hold it with equal conviction. But I do mean that, in a very real sense, the deep uneasiness with which the people of this country contemplate possible developments of German policy, throws its shadow across the whole country, irrespective of party or of creed.

Why is this? It cannot be attributed to prejudices rooted in a historic past. The German nation has never been our enemy. In the long series of wars in which Britain was involved between the Revolution of 1688 and the Peace of 1815, we always had German States as our allies; and few have been the Continental battles where English soldiers have fought, in which no German soldier was fighting in the same cause.

Nor are the Englishmen unmindful of their share in the great debt which all the world owes to German genius and German learning. For some two hundred years Germany has been as clearly first in the art of music as ever Italy was in the art of painting. She has been the great pioneer in modern classical philology, in modern criticism, in modern historical research, in the science of language, in the comparative study of religions. Indeed, she has been much more than merely a pioneer. She has not only shown how the work should be done, but she has willingly taken upon herself by far the largest share of the labour involved in doing it, and has harvested, as was just, by far the largest share of successful achievement.

In the domain of the natural sciences the story is indeed less one-sided. We in Britain need not be ashamed of the roll of great men who have contributed to the scientific developments which have made the last hundred years illustrious. But how admirable, both in quality and quantity, has been the German work in these departments! How perfect is their organisation for research! How fruitful in discovery!

And what shall I say of German philosophy? It was of this in particular that you desired me to speak, but in truth I am not qualified to say anything but what is known and acknowledged throughout all countries. Though my small philosophic barque attempts its explorations in shallower waters, I admire the mighty stream of European speculation, flowing since Leibnitz mainly in German channels, which has done so much to supply the world with

a spiritual philosophy. At this moment, as I suppose, four out of every five occupants of philosophic chairs in countries speaking the language of Locke, of Berkeley, and of Hume, draw from German sources both the substance of their teaching and its inspiration. This surely is a great thing to say ; for though philosophers be few in both nations, we must surely hope that their importance is not measured simply by their numbers.

If, therefore, recent years have produced a change in the way in which ordinary Englishmen judge of German policy, it is due to no national prejudice, to no under-estimate of German worth, to no want of gratitude for German services in the cause of universal culture. To what then is it due? I reply that, so far as I can judge, it is due to the interpretation which they have thought themselves obliged to place upon a series of facts or supposed facts, each of which taken by itself might be of small moment, but which taken together can neither be lightly treated nor calmly ignored.

The first of these facts (the first at least to be realised) was the German Navy Bill and its results. No Englishman denies the right of every country to settle the character and magnitude of its own armaments ; and there has been, I believe, no eagerness to detect in the German naval policy any intentions hostile to this country. But on such a point British opinion is sensitive, and must be sensitive, for reasons which are commonplaces here, but are, I think, imperfectly understood by many Germans who, in general, are friendly to this country. Let me briefly indicate their character.

If Englishmen were sure that a German fleet was only going to be used for defensive purposes—i.e. against aggression—they would not care how large it was ; for a war of aggression against Germany is to them unthinkable. There are, I am told, many Germans who would strongly dissent from this statement. Yet it is no paradox. Putting on one side all considerations based on public morality, it must be remembered, in the first place, that we are a commercial nation ; and war, whatever its issue, is ruinous to commerce and to the credit on which commerce depends. It must be remembered, in the second place, that we are a political nation ; and an unprovoked war would shatter in a day the most powerful Government, and the most united party. It must be remembered, in the third place, that we are an insular nation, wholly dependent on sea-borne supplies, possessing no considerable army either for home defence or foreign service, and compelled, therefore, to play for very unequal stakes should Germany be our opponent in the hazardous game of war.

It is this last consideration which I would earnestly ask enlightened Germans to weigh well if they would understand the British point of view. It can be made clear in a very few sentences : There are two ways in which a hostile country can be crushed. It can be conquered, or it can be starved. If Germany were masters in our home waters, she could apply both methods to Britain. Were Britain ten times master in the North Sea, she could apply neither method to Germany. Without a superior fleet, Britain would no longer count as a Power. Without any fleet at all, Germany would remain the greatest Power in Europe.

It is therefore the mere instinct of self-preservation which obliges Englishmen not merely to take account of the growth in foreign navies, but anxiously to weigh the motives of those who build them. If they are built solely for purposes of defence, Britain would not, indeed, be thereby relieved of the duty of maintaining the standard of relative strength required for national safety ; but she would have no ground for disquiet, still less for ill-will. But does Germany make it easy for Britain to take this view? The external facts of the situation appear to be as follows : The greatest military Power, and the second greatest naval Power in the world is adding both to her Army and to her Navy. She is increasing the strategic railways which lead to frontier States—not merely to frontier States which themselves possess powerful armies, but to small States which can have no desire but to remain neutral if their formidable neighbours should unhappily become belligerents. She is in like manner modifying her naval arrangements so as to make her naval strength instantly effective. It is conceivable that all this may be only in order to render herself impregnable against attack. Such an object would certainly be commendable, though the efforts undergone to secure it might (to outside observers) seem in excess of any possible danger. If all nations could be made impregnable to the same extent, peace would doubtless be costly, but at least it would be secure. Unfortunately, no mere analysis of the German preparations for war will show for what purposes they are designed. A tremendous weapon has been forged ; every year adds something to its efficiency and power ; it is as formidable for purposes of aggression as for purposes of defence. But to what end it was originally designed, and in what cause it will ultimately be used, can only be determined, if determined at all, by extraneous considerations.

I here approach the most difficult and delicate part of my task. Let me preface it by saying that ordinary Englishmen do not be-

lieve, and certainly I do not believe, either that the great body of the German people wish to make an attack on their neighbours, or that the German Government intend it. A war in which the armed manhood of half Europe would take part can be no object of deliberate desire either for nations or for statesmen. The danger lies elsewhere. It lies in the co-existence of that marvellous instrument of warfare, the German Army and Navy, with the assiduous, I had almost said the organised, advocacy of a policy which it seems impossible to reconcile with the peace of the world or the rights of nations. For those who accept this policy German development means German territorial expansion. All countries which hinder, though it be only in self-defence, the realisation of this ideal, are regarded as hostile; and war, or the threat of war, is deemed the natural and fitting method by which the ideal itself is to be accomplished.

Now it is no part of my intention to criticise such theories. My business is to explain the views which are held in Britain, not to condemn those which are preached in Germany. Let German students, if they will, redraw the map of Europe in harmony with what they conceive to be the present distribution of the Germanic race; let them regard the German Empire of the twentieth century as the heir-at-law of all territories included in the Holy Roman Empire of the twelfth; let them assume that Germany should be endowed at the cost of other nations with over-seas dominions proportionate to her greatness in Europe. But do not let them ask Englishmen to approve. We have had too bitter an experience of the ills which flow from the endeavour of any single State to dominate Europe; we are too surely convinced of the perils which such a policy, were it successful, would bring upon ourselves, as well as upon others, to treat them as negligible. Negligible surely they are not. In periods of international calm they always make for increasing armaments; in periods of international friction they aggravate the difficulties of diplomacy. This is bad: but it is not the worst. Their effects, as it seems to us, go deeper. To them is due the conviction, widely held, I am afraid, by many Germans, that Britain stands in their country's light, that Englishmen desire to thwart her natural development, are jealous of her most legitimate growth. Of these crimes we are quite unconscious; but surely it is no slight evil that they should be so readily believed. If ever, by some unhappy fate, it became an accepted article of faith in either nation that Germany and Britain were predestined enemies, that the

ambitions of the one and the security of the other were irreconcilably opposed, the predictions of those prophets (and they abound in the Chanceries of Europe) who regard a conflict between them as inevitable, would be already half-fulfilled. But for myself I am no believer in such predestination. Germany has taught Europe much; she can teach it yet more. She can teach it that organised military power may be used in the interests of peace as effectually as in those of war; that the appetite for domination belongs to an outworn phase of patriotism; that the furtherance of civilisation, for which she has so greatly laboured, must be the joint work of many peoples; and that the task for none of them is lightened by the tremendous burden of modern armaments, or the perpetual pre-occupation of national self-defence. If on these lines she is prepared to lead, she will find a world already prepared to follow—prepared in no small measure by what she has herself accomplished in the highest realms of science and speculation. But if there be signs that her desires point to other subjects, and that her policy will be determined by national ambitions of a different type, can it be a matter of surprise that other countries watch the steady growth of her powers of aggression with undisguised alarm, and anxiously consider schemes for meeting what they are driven to regard as a common danger? [1912.]

United States.

256. To us—I speak for myself, and I think I speak for those whom I am addressing—the idea of war with the United States of America carries with it something of the unnatural horror of a civil war. War with any nation is a contingency to be avoided at almost all costs, except the cost of dishonour; but war with the United States appears to have an additional horror of its own, born of the fact that those whom we should be fighting are our own flesh and blood, speaking our own language, sharing our own civilisation. I feel, so far as I can speak for my countrymen, that our pride in the race to which we belong is a pride which includes every English-speaking community in the world. We have a domestic patriotism as Scotchmen, or as Englishmen, or as Irishmen, or what you will. We have an Imperial patriotism as citizens of the British Empire. But surely, in addition to that, we have also an Anglo-Saxon patriotism which embraces within its ample folds the whole of that great race which has done so much in every branch of human effort, and above all in that branch of human effort which has produced free institutions and free communities. . . . We may be taxed with being idealists and dreamers in the

matter. I would rather be an idealist and a dreamer, and I look forward with confidence to the time when our ideals will have become real and our dreams will be embodied in actual political fact. It cannot but be that those whose national roots go down into the same past as our own, who share our language, our literature, our laws, our religion—everything that makes a nation great—and who share in substance our institutions—it cannot but be that the time will come when they will feel that they and we have a common duty to perform, a common office to fulfil among the nations of the world. The time will come, the time must come, when some one, some statesman of authority, more fortunate even than President Monroe, will lay down the doctrine that between English-speaking peoples war is impossible; and then it will be seen that every man who by rash action or hasty word makes the preservation of peace difficult, or it may be impossible, has committed a crime, not only against his own country, not only against that other country to whom he has invited war, but against civilisation itself. May no English statesman and no English party ever have the responsibility of that crime heavy upon their souls! [1896.]

257. For my own part I rejoice to have an opportunity of taking an active part on this occasion in furthering a cause which through all my whole political life has been so near my heart—the cause, I mean, not only of arbitration as between different civilised communities in the world, but in special degree arbitration which should for ever make impossible the contingency of a war between two great English-speaking communities of the world. We have always—both political parties, whatever their other differences in other spheres of speculation or of action—been at one in this great matter; and I do not believe there has ever been a moment, at any rate for the last quarter of a century, in which had there been any serious prospect of the great ideal which we cherish being carried into effect, your predecessor, my Lord Mayor, would not have been able to convene in this great hall an assembly to further that end. And certainly, so far as I am concerned, either in a private or public capacity, I shall leave no stone unturned to further the progress of a cause which is now more near its ultimate fruition than it has ever been in the whole history of the world.

Now, my Lord Mayor, there are those who I doubt not are most earnestly and seriously desirous of preserving peace, who look with some suspicion upon what they regard as the idealist dreams, and who think that, while it is easy to shout and hold meetings and interchange protocols in favour of peace, when the strain and stress comes of international rivalry, all these paper barriers will be swept away at once, and that the result will be not that peace will be secured, but that we shall have to part for ever with the prayer that by any international arrangements war may, to quote the Prime Minister, become as antiquated as duelling.

I do not share that view. It is quite true that it is folly to attempt to

make either positive law or international law go too far in advance of public opinion, or international opinion. Laws and treaties can do good. I grant the critic they cannot do everything ; I even go further and say that when a law or a treaty goes far in advance of the public opinion of the times, it may be that more harm is done than good by a well-meant attempt to embody impossible ideals in paper provisions. I cannot imagine a greater disaster to civilisation for centuries to come than that after such a treaty as we hope for has been carried into effect, it should be broken by either of the contracting parties. That, indeed, would be a blow not merely to international faith, but to civilisation and progress, under which we should stagger for generations. And, therefore, I am quite ready to grant that if public opinion on the two sides of the Atlantic were not ripe for this great development, it would not be wise for statesmen to encourage it. As far as my observation goes—and I do not think I am too sanguine—this gloomy view of the situation by no means represents the facts.

I speak naturally with more knowledge and more confidence of my own fellow-countrymen than I can venture to do for the English-speaking people 3000 miles away. Yet I do not think I am wrong when I say that not merely the Churches, not merely those who may be driven to apply or attempt to apply what is, for the moment, an impossible ideal to the practical working of life, not only those sections of society in America, and in the United Kingdom, are in favour of this movement, but that I believe the great mass of public opinion of all classes is in favour of it ; and if the skill of statesmen and diplomatists is indeed able to embody it in the formula of a treaty, there is no danger of either of the two great contracting parties in moments of stress and temptation and difficulty endeavouring to break away from it.

May I point out, in answer to an argument which I have sometimes heard used, how valuable a positive provision may be when made at an appropriate moment to help us to carry out any great ideal ? There are critics who would put this dilemma to you : they say, if public opinion is, as to the majority on both sides of the Atlantic, in a condition which makes it easy to use arbitration, instead of war, as a method of settling difficulties, why have a treaty ? And if public opinion, on the other hand, is not ripe for arbitration, your treaty will be useless, and, as I have ventured to point out, even worse.

Yes, but my Lords and Gentlemen, these most logical dilemmas do not represent what actually happens in human nature. That is not the way human societies work. We live and are bred to think that we live in this country under the rule of law. But those laws would be useless, I admit, if they had not behind them the conscience of the community ; but because they have behind them the conscience of the community, are they therefore useless ? Not at all. Positive enactment, paper formulas, are useless in themselves. Granted. But if they represent the settled trend of the moral instincts of a great people, they are the most invaluable addition to all the

securities which that morality requires. Those referred to by the Prime Minister, who look with a kind of cynical despair upon the promptings of mankind and who seem to assume that because there are so many problems still unsolved all problems are insoluble, I would respectfully ask to consider, not how war has been prevented, but how war has been conducted under the growing pressure of humanitarian feeling on the one side and the so-called laws of civilised warfare on the other.

These laws of civilised warfare have no more sanction behind them than any international treaties have: I mean, you cannot call in a policeman to enforce them. You cannot bring in the malefactor who breaks them; you cannot bring him before a Court of Criminal Jurisdiction. Notwithstanding, let anybody study what actually happens in war; let anybody study what a different view of what was permissible in law generals of successful armies might take in moments of temptation and crisis, and they will agree with me that understandings and laws have a more operative effect than if they have no sanction of force or Court behind them; that the public morality which has brought them into being is sure to support them. And if we are still obliged in certain cases to submit to the barbarous arbitrament of war, yet we have made war a far more civilised instrument, barbarous though it be, than ever it was in the past; and if you can do that where war is concerned, cannot you do it in order that war may be for ever banished?

There is one great argument I should venture to suggest, and which has been briefly, though adequately, touched upon already in the speech of the Prime Minister. I think we must be careful not to mix up this question of the morality of war and the methods of avoiding war with that other most grave and serious question, the burdens of preparation for war. I do not, of course, deny that they are connected. I do not, of course, for a moment say that one of the reasons why statesmen and Churchmen alike welcome movements of this kind, namely, that the time may come when these millions of pounds, and the infinite efforts of ingenuity, shall be diverted to more fertile work than that of constructing Dreadnoughts, or inventing guns, rifles, and explosives. But though that may be, and is, one of the by-products of improving civilisation, of a civilisation which will exclude war, I think, as a method of settling differences, we should approach this as far as possible not from that side, which has in it, as it were, an immediate touch of self-interest.

There is probably no assembly in the world which feels the pinch of expenditure involved in armaments more than the one which I am now addressing, but I believe that those who, like myself, are idealists in this matter, I believe that those who, like myself, look forward to a time when war shall be regarded as a barbarous survival, I believe that those will best serve their cause if there is no confusion at all events between the two issues. We have, as the Prime Minister has pointed out, we have and shall have, if and when—I miss out “if”—when this treaty is carried out,

we shall have responsibilities not less onerous than those which now weigh upon our shoulders.

We shall never be able to get rid of those by any mere treaty, any treaty, with English-speaking communities of the world. Our responsibilities for every part of our vast Empire, and the responsibilities of other great civilised nations, remain for the moment undiminished, and, among the infinite lessons which I think would follow upon carrying out a treaty of this kind, I do not regard any immediate fruit in the reduction in the burden of armaments as one which we can too confidently look forward to. I hope I am wrong, but even if I am right, that does not and ought not to diminish the zeal with which we should pursue this ideal, not of alliance, but of understanding, not of anything which could produce international complications, with the great English-speaking community across the Atlantic. It should not prevent us pursuing most earnestly a practical scheme by which, as I believe, we who speak the English tongue, we whose institutions are all drawn from a common source, we who all believe in a common form of freedom, we, with all these interests, all these traditions in common, should be able to join together and set an example to the world at large. Not only will it produce, as I believe, and secure for ever the absolute certainty of peace between us and the United States, but it will be the beginning of a new era. It will be the first attempt to reach that view of a common bond between all civilised nations which shall prevent these barbarous survivals being still used among us; and if that prophecy—not too sanguine, as I hope—be fulfilled, then you, my Lord Mayor, may surely look back upon this day and this meeting as one of the most significant epochs in the progress of civilisation. . . . [1911.]

258. The United States also have their problems of Empire; they also have their difficulties; and their difficulties are, and must be, closely analogous to those which we have experienced and with which we are endeavouring to deal. And while the problems in those two great nations are identical, surely we may say the spirit in which we are approaching them is identical also.

There have been circumstances, familiar to all of us, dating from the very inception of the great Republic and extending through its history, which have made difficulties between the two branches of the English-speaking people of the world; but the realities in history, the foundations of history, are still stronger, and we cannot help being considered as one nation. The bonds go too deep into the history of the people, into the thought, language, literature, and everything which gives characteristic expression to the people. The most casual observer, knowing nothing of the history, and ignorant of the common law which prevails in both countries, perfectly indifferent to the literature in which both countries share, indifferent as to the history of both countries, has only got to see,

only got to travel to see, to understand. He has only got to follow the working of their institutions thoroughly to grasp the truth that they are of one stock and have to carry out one great common duty to the world. We British believe that the British Empire is synonymous in the extension of liberty and self-government in every part of the world which the men of our race and our language occupy. That is our belief, and I hope—I think—that is not a mistaken belief. I believe, and I hold, that more and more our mission in those parts of the earth where we have influence is being understood and sympathetically comprehended by our brothers across the Atlantic. They, too, have like problems, and are one with us for liberty, and have the same ideas as we cherish. And surely it is predestined that in the world's history we should carry out, not by any formal alliances, not by parchments and treaties, but by something far deeper than those mere external and formal symbols, the ideals and aims in regard to self-government, order, liberty, and individuals: we are for peace—peace—peace above all! We are predestined to pray and work together for the great aim of civilisation and progress.

Now I am going to draw two idealistic pictures of the future—and, believe me, for my own part I cannot help believing that what was recently passed in both countries, especially the treaty of arbitration, points to the inherent truth of what I have been saying. I am not going to discuss here the general question of the treaty of arbitration, nor am I going to plunge into questions which certainly do not divide us on this side of the water, and I hope and believe do not divide the Americans on the other side of the water. Still, surely I am right in saying that the very fact that such a proposal as a special treaty of arbitration—that the moment it should be suggested on the one part it should be received with such an enthusiastic echo by the other part, that even the cynic and the man of the world who know so little of the world in which they live, that even these decriers of idealism hold their hands, abstain from epigrams, do not suggest that these are impossible aspirations of fanatical peace-at-any-price persons—the very fact that this seems the natural culmination of a natural progress is the greatest proof that all I have said with regard to the impossibility of dividing the destinies of the great nations is absolutely true and founded upon literal fact. It is no dream: it is reality. It is not a fantastic representation of what might be if the world only were constructed on different lines from what it is. Such dreams are useless. The vision that I am calling up before you is based on the realities of history—the realities of the past, the realities of the present, and the common burden thrown upon the two great nations in the future. None of us can look at the future without anxiety—not, indeed, in any pessimistic or doubting spirit, but still in a spirit of anxiety. These two great nations are democracies, and democracy is not a thing that runs by itself because it is democracy. It is not a thing whose failure is inconceivable simply because it is drawn upon judicious lines. Democracy is one of the most difficult forms of govern-

ment that the world has ever devised, although it be the greatest. Although it is the culmination of all the political experiments of the past, do not believe that on that account it is an easy experiment to carry to a successful issue. It is a very hard experiment. We on this side of the water and you on the other side of the water will equally—you and your children will equally—find that the problems which democracy presents are not simple and not easy of solution, are not going to solve themselves, but require the ardent and self-sacrificing patriotism of the very best men of the community everywhere, to see that the will of the people shall indeed move along lines which are in the direction of true progress and not mere claptrap, not mere claptrap shibboleths; and though I do not for one moment suggest that the issue is doubtful, though I look forward with a convinced optimism to the result of all the work that is now being done here and elsewhere in these great free communities, I never can conceal from myself that the difficulties of carrying out that great issue successfully are growing and are not diminishing, and that unless men of light and leading will rally, throwing themselves heart and soul into the struggle, both America and the British Empire may find that while the word "progress" is perpetually on our lips we may yet be face to face with a danger and difficulty of which the solution may escape even the wisest. But I am not going to end on a note of doubt, the more so because I feel no doubts. I have been, in fact, betrayed into speculations of a wider character than I think perhaps appropriate. . . . [1911.]

Literature.

[See also "NOVELS" and "READING".]

259. Literature is more universal than any other form of human activity, because in one sense it includes them all. Literature is art, but it is not art alone; it is also science, and it is also learning; and therefore the number of those to whom literature appeals is necessarily greater than those who are appealed to either by painting, or by music, or by architecture, or by any one of those arts that are more strictly and properly designated as fine arts. Further, it has always appeared to me that it is more in our power to render literature accessible to the general community than it is in our power to render any fine art accessible to the masses of our countrymen. [1889.]

260. I suppose, if we were concerned to distinguish the orator from the man of letters, we should say that an orator was a man whose public utterances depended not upon himself alone but upon the action and reaction between himself and the audience which he was addressing. We should say that he was a man who by himself was little, but in relation to his audience was much—who gave them much and who received much from them. Oratory, as so defined, has many great advantages, but it has some great defects. The orator is too apt to depend upon adventitious aids to the arguments which he is advancing. He is too apt to depend at last upon exaggeration, upon epigram, upon invective, upon personal attack, upon all the arts and devices—I use these words in no depreciatory sense—familiar from all time to those who have taken part in public affairs by debate. From these defects Lord Derby was conspicuously free. He never depended for the effect which he produced either upon a personal attack, or upon turning an opponent into ridicule, or upon exaggerating his own case, or upon unduly belittling the case of his opponent. He had the incomparable, the almost unique art of making good an argument in a speech without any of those adventitious aids, and at the same time of making it interesting to every man who heard him, or who read the speech, and of making it convincing to every man who was prepared to study it with an open mind. Those who have never tried to do this may think it an easy task. If anybody does think it an easy task, let him try to do it, and I will guarantee that he will change his opinion. It does appear to me

that in these days, when the orator, as I have defined him, is having a good time, when a speaker of the temper and character of Lord Derby is rare, and even impossible now—it does appear to me that our loss is very difficult to overestimate. We are constantly told that we live in a democratic age ; and undoubtedly we do. At all events, we live in an age of—I was going to say government by debate, but that would be perhaps too great a compliment to pay to it—an age of government by rhetoric.

It is an unfortunate fact that a democracy, which perhaps more than any other requires the cold and aloof reasoning of a statesman like Lord Derby, should have such a passion for the less dry light which is so abundantly provided by the modern machinery of electioneering. I have been informed—I am glad to say that I have no personal experience of the matter—that patients suffering from the gout have a peculiar appetite for those particular dishes which most minister to the fostering of their especial disease. So it appears to me to be the case of the British public at the present time. What they want is reasoning ; what they love is rhetoric. Therefore, it is that, apart from all personal considerations, and apart from all considerations connected with this society, I think that this is a fitting opportunity to express my own individual regret, and I believe your regret also, at the loss of a great man who had the unique art of making reasoning as attractive to the masses as rhetoric could possibly be. I feel tempted to say that in my judgment the course of events, and the future we have to look forward to, make that loss even more grievous than it would otherwise be.

But I fear that on the present occasion I have dealt too long with this special topic. My business is rather to talk to you not of the political future of the country, but of matters connected with literature—of matters, in other words, which those who belong to this society may be supposed to take an especial interest in, and have especially under their charge. I do not know that I have anything to say which may interest you on this topic. We have all felt that the great names which rendered illustrious the early years of the great Victorian epoch are one by one dropping away, and now perhaps but few are left. I do not know that any of us can see around us the men springing up who are to occupy the thrones thus left vacant. I should not venture to say—and indeed I do not think—that we live in an age barren of literature. But none of us will deny that at all events at the present moment we do not see a rising generation of men of letters likely to rival those of old times. I was born, I suppose, too late to join in the full enthusiasm which I have known expressed for the writers whose best works were produced before 1860 or 1870. Personally I have known many who found in the writings of—whom shall I say?—Carlyle, Tennyson, Browning, and George Eliot everything that they could imagine or desire, either in the way of artistic excellence, or ethical instruction, or literary delight. I have not myself ever been able to surrender myself so absolutely to the charm and the greatness of these great and

charming writers. I have sometimes thought that the age of which I speak may perhaps have been inclined unduly to exalt itself in comparison with that despised century, the eighteenth. Whoever may be right or wrong in these matters, at all events the fact remains that the authors to whom I have alluded would have rendered any reign illustrious ; that they have departed ; and that we do not at present see among us their successors.

It is a most interesting situation, because I am not prepared to admit that we live in an age which bears upon it the marks of decadence. Undoubtedly there is more knowledge of literature, more command of literary technique, both in prose and in poetry, at the present moment, than has been often the case, or perhaps ever the case before. You will find a true literary instinct pervading the whole enormous and even overwhelming mass of contemporary literature. Therefore it certainly is not from ignorance nor indifference that the present age fails, if, indeed, I am right in thinking that it does fail. Neither has the present age another mark which has been characteristic of previous ages of decadence. There have been periods when the love of literature was very widely spread through the community, when a knowledge of literature and a command of literary forms was prevalent among the educated classes ; but when, at the same time, the admiration of past works of genius was so overwhelming that it seemed almost impossible to bring forth new works of genius in competition with them. The old forms, in fact, commanded and mastered whatever imaginative and original genius there may have been at the time of which I am speaking. I do not believe that that is the case now. My own conviction is that at this moment, not only is there no dislike of novelty, not only is there no prejudice in favour of ancient models, but any new thing of any merit whatever is likely to be accepted and welcomed at least at its true value.

I recollect an artist friend of mine, who had studied for some time in the cosmopolitan studios of Paris, saying that in his opinion we were on the very verge of a great artistic revival. He said that he found among the students with whom he associated such a zeal for art and such a knowledge of art, so great a desire to bring forth some new thing which should be worthy of the everlasting admiration of mankind, that in his judgment it was absolutely impossible that so much talent, so much zeal, and so much readiness to accept new ideas should not ultimately issue in the formation of a great and original school of painting. What he said of painting we may surely say at the present day of literature. It only requires the rise of some great man of genius to mould the forces which exist in plenty around us, to utilise the instruction which we have almost in superabundance, and to make the coming age of literature as glorious or even more glorious than any of those which have preceded it. Whether that genius will arise or not I cannot say. "The wind bloweth where it listeth, and no man knoweth whence it cometh or whither it goeth." So it is with genius ; and no man can prophesy what is to be the

literary future of the world. My friend Lord Kelvin has often talked to me of the future of science, and he has said words to me about the future of science which are parallel to the words I have quoted to you about the future of art and with the hope which I have expressed to you with respect to literature. He has told me that to the men of science of to-day it appears as if we were trembling upon the brink of some great scientific discovery which should give to us a new view of the great forces of nature among which, and in the midst of which, we move. If this prophecy be right, and if the other forecasts to which I have alluded be right, then indeed it is true that we live in an interesting age; then indeed it is true that we may look forward to a time full of fruit for the human race—to an age which cannot be sterilised, or rendered barren, even by politics. [1893.]

261. After all, though the provinces of literature are many, the kingdom of literature is one. However diverse be the fields in which men of letters work, they are all conscious of belonging to one community and of furthering one cause. I do not wish to press too far the merits of literature. I do not pretend that literature necessarily softens the manners. I do not pretend that literature carries with it all the cardinal virtues in its train, or that the Ten Commandments are likely to be specially observed in a community of literary instincts and literary tastes. I think much harm has been done by pretending that literature can do that which literature itself cannot do, and which, if it is to be done at all, must be done by other and far different forces. But, without pretending that literature can do that which experience shows it cannot do, and has not done, still it is, after all, one of the greatest engines—the greatest engine—for the production of cultivated happiness. It has produced, and is daily and hourly producing, more innocent and refined pleasure in every class, from the richest to the poorest, in every country where education is known, than any other source of pleasure whatever. All those who, even in the smallest degree, have given themselves up to the fascinations of literary life would change the satisfaction that they derived from it for no other that could be provided for them. And whatever else the spread of education may do, at all events this it ought to do—it ought to put these pleasures ever, day by day, within the reach of a larger circle, within the grasp of a greater number of our fellow-creatures. . . . [1897.]

262. I have no doubt that these poems were admirable literary specimens of what the living Welsh tongue can do. It is, alas, the tragedy of all art which is embodied in language. The value of these artistic performances never can be fully appreciated outside the circle, wide or narrow, of those who have from their birth had an intimate acquaintance

with the tongue in which these works of art are embodied. Nothing will get over it. It is part of the laws of Nature. Translation may give you the substance, but never can give you the real artistic soul of any composition, for that depends ultimately and essentially upon style, and style is incapable of translation. It is a sad thought to me how much of the great literary genius of the world has through the operation of this law been inevitably confined to the too narrow circle of auditors. It is true even of those languages which have the widest sweep, which are most widely spoken by the mass of the population of vast areas. It is necessarily even more true of nations which are restricted in the number of persons who are brought up in the knowledge of the language which alone will enable them to appreciate real literature couched in those languages: and when I think of this tragedy, which touches all literature without exception, I sympathise with, although I recognise the impossibility of, that mediæval dream which hoped that in some one language—in Latin for instance—might be found a universal vehicle through which men of all ages and times and forms of human belief might exhibit in literary form their artistic powers of creation. It was a dream. It was a dream which never could be realised, and which the world seems no nearer realising than it did some centuries ago. But I rejoice to think that though, from the nature of the case, those who give to their fellow-countrymen literature in the Welsh language—though it is confined to comparatively few who can properly appreciate their work—I rejoice to think that at the same time the people of Wales had from immemorial ages shown themselves to be masters of another form of artistic expression not confined by national barriers or hampered by linguistic limitations.

[1909.]

263. From the point of view of the after-dinner speaker, I suppose all toasts may be divided, according to the magnitude of their subject-matter, into three categories. You may have those which are so small that it is hardly possible to beat them out thin enough to fill up a speech; you may have those which are of that degree of complexity with which the speaker may be expected adequately to deal; and you may have those which are obviously so large, that cover such a vast area, that neither an after-dinner speaker nor even the volumes which industry and research pour forth year after year can hope finally to compass or to exhaust.

Of those three categories I have no doubt that the last is the most convenient for the after-dinner speaker. If you have got to deal with the first, your difficulty is to find the material. If you have got to deal with the second, you are severely criticised if you do not cover the ground. No human being expects you to cover the ground of literature, and criticism disappears almost before the speaker rises by the consciousness of every one of his hearers that whatever he says, even if he be gifted

with the tongue of angels, he can neither cover the ground nor can he say anything which will give the smallest impetus or impulse to those great movements of the human spirit of which literature is itself the product.

And yet although literature be thus in the third and most agreeable category of subjects of after-dinner speaking, it has some defects. Is it to deal with the past, the present, or the future? It is folly to try to touch upon the past. We do not drink the health of the Immortals. Their position is assured. Nothing which any speaker can say, whether he be an after-dinner speaker or in whatever position he may be to address the public, can add to their fame. He cannot illustrate their merits. He cannot alter the opinion of any human being as to the claims they have upon our affection and upon our regard.

Is a speaker to deal with the future? Of the future of literature luckily no man can know anything. I say luckily because I am not one of those who believe that such a subject can be usefully brought under the rule of scientific law, that you can prophesy from the present what is to come.

Then, are we to deal with the present? Who would venture on this, or indeed on any other occasion, to try and appreciate the merits, the comparative merits of living authors, or to say what niche of fame they are going to occupy in the future, or how they will compare with their predecessors, or how they will influence those who come after them? But you have only to look at the writings of distinguished critics to see how carefully they fight shy of any estimate of contemporary merit. They deal with the past splendidly, adequately; they deal with it in these days in a manner which our forefathers never dreamt of, and which our forefathers could not rival; but of the present they do not feel themselves, as far as I can form an opinion, to be adequate judges; they neither pronounce their views of the merits of the living nor do they attempt to forecast the relative fame which they will occupy in the future. Therefore it will be admitted that if you are to deal neither with the past nor with the future, and if you are confined to the present under the conditions which I have attempted to describe, the task of any man touching on the topic of literature is not an easy one.

And yet, difficult though it may be, how interesting it is, for we are told by great critics that the literature of an age is its picture, that if you look at the past and really grasp the character of the literature which appealed to it, you will understand that past, that a generation cannot express itself more clearly than in the literature it produces and the literature which it encourages. We must therefore conceive ourselves as having our photographs, our cinematograph, taken, month after month, by the literature which we buy, which we read, which we admire, and which we absorb. That is going to represent us to the future critic. By that, according to this theory, we shall be judged. That is the picture which is going down to posterity of the souls of this generation.

And I think there is truth—I think there is force—in this contention, which must impress everybody who reflects upon it.

Yet I would venture to suggest to those who advance this theory in its more extreme form, that it may be easily pressed too far. As I understand the theory, it depends upon this: That there is in each epoch, at each moment of time, a public taste which admits certain forms of genius or talent to suit itself, and which crushes out the remainder, which acts as stained glass acts upon light, letting through rays of a certain quality and character and absorbing the rest.

And if you are going to accept this view that there is a particular public taste at a particular moment, depending wholly upon the character of the society at the time, then I think there may be truth in that doctrine. But let us always remember that this taste itself, this taste which is supposed to act as a differentiating medium, is a thing which is capable of being changed by the action of literature, by the action of genius and of talent. It is not that talent finds itself face to face with this kind of unchangeable, transparent medium, only letting through certain rays and pitilessly rejecting others. That does not represent the facts. Taste can be changed; it is a matter of manufacture. Every great producer will tell you—every great producer of luxuries will tell you—that he has not only to produce the things which the public want, but he has to make the public want them; and when he has made the public want them he calls that good business. A similar process, but with a very different motive, is carried out by the man of genius, by the man of originality, by the man whose natural gifts do not run precisely in the line of contemporary fashion, but rather force him and press him on to a new mode of expression of ideas which themselves may be new. He also can change the taste by which he is to be judged. He also can act upon this translucent screen which lets through some rays, rejects some, and absorbs others. And nothing is more interesting than to watch, not how the public taste compels one kind of literature and one kind of literature alone, or literature within a limited class of literary effort, to succeed, but how despite itself the public is made by the force of genius to accept some new mode of expression, some new ideal of art, some living change in the perpetually living process of the human spirit.

Do not let us look at artistic and literary production in too mechanical a fashion. Literature is not the result merely of what are called sociological causes. Not only is it not that result, but it is not determined by it. It is determined by the interaction of those causes and the individual genius which no scientific generalisation can class, which no scientific prophecy can foretell.

Therefore it is that I for my part am reluctant to see literature treated in what is called too scientific a spirit, because I think that science in dealing with this progress of the free human spirit is really going far beyond—I will not say its future capacity, for I do not wish to set bounds to the

power of science—but far beyond anything which it can do at present. We must take genius as an accepted fact, and when we have so taken it, it is folly to try and bind it down into the limits of any formula whatever.

The making of taste by a great man of letters, or a great artist, or a great school of art, is one of the most interesting phenomena, as I think, in one of the most fascinating subjects of study, namely, literary and artistic history; and I sometimes feel as if imperfect justice was done to those who begin to make the taste by which the efforts of subsequent genius are rendered possible. We talk of the forerunners of a particular movement, a particular literary development, a particular artistic or musical development, and we analyse the gain which greater successors obtain from their works, how these greater successors borrow a particular method and develop a particular mode of using their artistic instruments.

But I think sometimes we forget another and quite different service which these forerunners did. They began to make the atmosphere, the climate, possible, in which their greater successors are to flourish. They started the taste which their successors are going to use, and you will constantly find, therefore, that the beginners of a great literary or artistic movement are far inferior to their successors; but you have to acknowledge that without them, without in the first place the additions and changes they have made in artistic method, and also without the changes they have made in that taste, in that æsthetic climate in which alone the new works can flourish, their greater successors would never have obtained the deserved fame which has enshrined them in the love of their fellow-creatures.

However, I think I said earlier in my speech that I did not much care myself for attempts to reduce literary history to a science, and I feel perhaps that in the observations I have made I have run somewhat counter to my own canon. The pleasures that I derive personally from literary history are biographical. They are the pleasures of feeling myself brought into direct contact by the writer with great men who have long passed away; and another pleasure, not at all to be despised, of being brought into contact with the living and contemporary taste of the critic himself. That double pleasure I, individually, derive from literary criticism; and I think the two things together make up, so far as I am concerned, the sum of those great feelings of gratification which literary history has always given me.

If that be the true way of considering those whose business it is to deal with the great men of letters of the past, I suppose I ought to try before I sit down, I will not say to offer a criticism upon the present, but to give expression to a personal predilection with regard to contemporary literature.

There was a brilliant novel written by a contemporary author which narrated the cheerful successes of the hero, who went from one fortunate enterprise to another, until at the end he reached the goal of his ambitions. The novel ends with the final triumph of the hero, and a friendly critic observes, "After all, what has this man done? With what great cause is he identified?" The novel ends with the answer of another friend to this

carping critic, "After all, he has contributed to the great cause of cheering us all up". Now, I am constantly being asked to contribute to causes of one sort or another. They are very seldom, I regret to say, causes which are likely to cheer us all up. I hope they are useful; I believe in many cases they are necessary: but that great function of cheering us up they do not perform. I think myself that is a great function, one of the great functions of literature.

I do not at all deny, of course, that things sad, sorrowful, tragic, even dreary, may be and are susceptible of artistic treatment, and that they have been, and are, admirably treated by great literary artists. But for my own part I prefer more cheerful weather.

Now, I think that literature is less cheerful than it was when I was young. It may be that it is because I am growing old that I take this gloomier view of literary effort; but still I personally like the Spring day and bright sun and the birds singing, and, if there be a shower or a storm, it should be merely a passing episode in the landscape, to be followed immediately by a return of brilliant sunshine. Whilst that is what I prefer, I of course admit that a great picturesque striking storm is a magnificent subject for artistic treatment, and is well worthy of the efforts of great artists. I am not quite sure whether the dreary day in which nothing is seen, in which the landscape does not change, in which there is a steady but not violent downpour of rain, in which you feel that you can neither look out of the window nor walk out of doors, in which every passer-by seems saddened by the perpetual and unbroken melancholy of the scene—I do not say that that ought not to be treated as a subject of literature. Everything, after all, which is real is a potential subject of literature. As long as it is treated sincerely, as long as it is treated directly, as long as it is an immediate experience, no man has the right to complain of it. But it is not what I ask of literature.

What I ask from literature mainly is that, in a world which is full of sadness and difficulty, in which you go through a day's stress and come back from your work weary, you should find in literature something which represents life, indeed which is true, in the highest sense of truth, to what is and what is imagined to be true, but which does cheer us up.

Therefore, when I ask you, as I now do, to drink the Toast of Literature, I shall myself *sotto voce* as I drink it, say, not literature merely, but that literature in particular which serves the great cause of cheering us all up.

[1912.]

Matter.

[*The extracts under this heading are taken from the Presidential Address—"Reflections suggested by the New Theory of Matter"—delivered to the British Association for the Advancement of Science, August, 1904.*]

264. It is not only inconvenient, but confusing, to describe as 'phenomena' things which do not appear, which never have appeared, and which never can appear, to beings so poorly provided as ourselves with the apparatus of sense-perception. But apart from this, which is a linguistic error too deeply rooted to be easily exterminated, is it not most inaccurate in substance to say that a knowledge of Nature's laws is all we seek when investigating Nature? The physicist looks for something more than what by any stretch of language can be described as 'co-existences' and 'sequences' between so-called 'phenomena'. He seeks for something deeper than the laws connecting possible objects of experience. His object is physical reality; a reality which may or may not be capable of direct perception; a reality which is in any case independent of it; a reality which constitutes the permanent mechanism of that physical universe with which our immediate empirical connection is so slight and so deceptive. That such a reality exists, though philosophers have doubted, is the unalterable faith of science; and were that faith *per impossibile* to perish under the assaults of critical speculation, science, as men of science usually conceive it, would perish likewise.

265. But to-day there are those who regard gross matter, the matter of everyday experience, as the mere appearance of which electricity is the physical basis; who think that the elementary atom of the chemist, itself far beyond the limits of direct perception, is but a connected system of monads or sub-atoms which are not electrified matter, but are electricity itself; that these systems differ in the number of monads which they contain, in their arrangement, and in their motion relative to each other and to the ether; that on these differences, and on these differences alone, depend the various qualities of what have hitherto been regarded as indivisible and

elementary atoms ; and that while in most cases these atomic systems may maintain their equilibrium for periods which, compared with such astronomical processes as the cooling of a sun, may seem almost eternal, they are not less obedient to the law of change than the everlasting heavens themselves.

But if gross matter be a grouping of atoms, and if atoms be systems of electrical monads, what are electrical monads? It may be that, as Professor Larmor has suggested, they are but a modification of the universal ether, a modification roughly comparable to a knot in a medium which is inextensible, incompressible, and continuous. But whether this final unification be accepted or not, it is certain that these monads cannot be considered *apart* from the ether. It is on their interaction with the ether that their qualities depend—and without the ether an electric theory of matter is impossible.

Surely we have here a very extraordinary revolution. Two centuries ago electricity seemed but a scientific toy. It is now thought by many to constitute the reality of which matter is but the sensible expression. It is but a century ago that the title of an ether to a place among the constituents of the universe was authentically established. It seems possible now that it may be the stuff out of which that universe is wholly built. Nor are the collateral inferences associated with this view of the physical world less surprising. It used, for example, to be thought that mass was an original property of matter : neither capable of explanation nor requiring it ; in its nature essentially unchangeable, suffering neither augmentation nor diminution under the stress of any forces to which it could be subjected ; unalterably attached to each material fragment, howsoever much that fragment might vary in its appearance, its bulk, its chemical or its physical condition.

266. But if the new theories be accepted, these views must be revised. Mass is not only explicable, it is actually explained. So far from being an attribute of matter considered in itself, it is due, as I have said, to the relation between the electrical monads of which matter is composed and the ether in which they are bathed. So far from being unchangeable, it changes, when moving at very high speeds, with every change in its velocity.

267. If we accept the electric theory of matter, we can then no longer hold that if the internal energy of a sun were as far as

possible converted into heat either by its contraction under the stress of gravitation, or by chemical reactions between its elements or by any other inter-atomic force; and that were the heat so generated to be dissipated (as in time it must be), through infinite space, its whole energy would be exhausted. On the contrary, the amount thus lost would be absolutely insignificant compared with what remained stored up within the separate atoms. The system in its corporate capacity would become bankrupt—the wealth of its individual constituents would be scarcely diminished. They would lie side by side, without movement, without chemical affinity, yet each one, howsoever inert in its external relations, the theatre of violent motions, and of powerful internal forces.

Or put the same thought in another form—when the sudden appearance of some new star in the telescopic field gives notice to the astronomer that he, and, perhaps, in the whole universe, he alone, is witnessing the conflagration of a world; the tremendous forces by which this far-off tragedy is being accomplished must surely move his awe. Yet not only would the members of each separate atomic system pursue their relative course unchanged, while the atoms themselves were thus riven violently apart in flaming vapour, but the forces by which such a world is shattered are really negligible compared with those by which each atom of it is held together.

In common, therefore, with all other living things we seem to be practically concerned chiefly with the feebleness of Nature, and with energy in its least powerful manifestations. Chemical affinity and cohesion are on this theory no more than the slight residual effects of the internal electrical forces which keep the atom in being. Gravitation, though it be the shaping force which concentrates nebulae into organised systems of suns and satellites, is trifling compared with the attractions and repulsions with which we are familiar between electrically charged bodies; while these again sink into insignificance beside the attractions and repulsions between the electric monads themselves. The irregular molecular movements which constitute heat, on which the very possibility of organic life seems absolutely to hang, and in whose transformations applied science is at present so largely concerned, cannot rival the kinetic energy stored within the molecules themselves. This prodigious mechanism seems outside the range of our immediate interests. We live, so to speak, merely on its fringe. It has for us no promise of utilitarian value. It will not drive our mills; we cannot harness it to our trains. Yet not less on that account does it stir the intel-

lectual imagination. The starry heavens have, from time immemorial, moved the worship or the wonder of mankind. But if the dust beneath our feet be indeed compounded of innumerable systems, whose elements are ever in the most rapid motion, yet retain through uncounted ages their equilibrium unshaken, we can hardly deny that the marvels we directly see are not more worthy of admiration than those which recent discoveries have enabled us dimly to surmise.

268. Men of science have always been restive under the multiplication of entities. They have eagerly watched for any sign that the different chemical elements own a common origin, and are all compounded out of some primordial substance. Nor for my part do I think such instincts should be ignored. John Mill, if I rightly remember, was contemptuous of those who saw any difficulty in accepting the doctrine of 'action at a distance'. So far as observation and experiment can tell us, bodies *do* actually influence each other at a distance; and why should they not? Why seek to go behind experience in obedience to some *a priori* sentiment for which no argument can be adduced? So reasoned Mill, and to his reasoning I have no reply. Nevertheless, we cannot forget that it was to Faraday's obstinate disbelief in 'action at a distance' that we owe some of the crucial discoveries on which both our electric industries and the electric theory of matter are ultimately founded: while at this very moment physicists, however baffled in the quest for an explanation of gravity, refuse altogether to content themselves with the belief, so satisfying to Mill, that it is a simple and inexplicable property of masses acting on each other across space.

269. The common notion that he who would search out the secrets of Nature must humbly wait on experience, obedient to its slightest hint, is but partly true. This may be his ordinary attitude; but now and again it happens that observation and experiment are not treated as guides to be meekly followed, but as witnesses to be broken down in cross-examination. Their plain message is disbelieved, and the investigating judge does not pause until a confession in harmony with his preconceived ideas has, if possible, been wrung from their reluctant evidence.

270. The electric theory which we have been considering

carries us into a new region altogether. It does not confine itself to accounting for the secondary qualities by the primary, or the behaviour of matter in bulk by the behaviour of matter in atoms; it analyses matter, whether molar or molecular, into something which is not matter at all. The atom is now no more than the relatively vast theatre of operations in which minute monads perform their orderly evolutions; while the monads themselves are not regarded as units of matter, but as units of electricity; so that matter is not merely explained, but is explained away.

271. There is an added emphasis given to these reflections by a train of thought which has long interested me, though I acknowledge that it never seems to have interested anyone else. Observe, then, that in order of logic sense-perceptions supply the premises from which we draw all our knowledge of the physical world. It is they which tell us there *is* a physical world; it is on their authority that we learn its character. But in order of causation they are effects due (in part) to the constitution of our organs of sense. What we see depends not merely on what there is to be seen, but on our eyes. What we hear depends not merely on what there is to hear, but on our ears. Now, eyes and ears, and all the mechanism of perception, have, according to accepted views, been evolved in us and our brute progenitors by the slow operation of natural selection. And what is true of sense-perception is of course also true of the intellectual powers which enable us to erect upon the frail and narrow platform which sense-perception provides, the proud fabric of the sciences.

272. It is certain that our powers of sense-perception and of calculation were fully developed ages before they were effectively employed in searching out the secrets of physical reality—for our discoveries in this field are the triumphs but of yesterday. The blind forces of Natural Selection which so admirably simulate design when they are providing for a present need, possess no power of prevision; and could never, except by accident, have endowed mankind, while in the making, with a physiological or mental outfit adapted to the higher physical investigations. So far as natural science can tell us, every quality of sense or intellect which does *not* help us to fight, to eat, and to bring up children, is but a by-product of the qualities which *do*. Our organs of sense-perception were not

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given us for purposes of research ; nor was it to aid us in meting out the heavens or dividing the atom that our powers of calculation and analysis were evolved from the rudimentary instincts of the animal.

It is presumably due to these circumstances that the beliefs of all mankind about the material surroundings in which it dwells are not only imperfectly but fundamentally wrong. It may seem singular that down to, say, five years ago, our race has, without exception, lived and died in a world of illusions ; and that its illusions, or those with which we are here alone concerned, have not been about things remote or abstract, things transcendental or divine, but about what men see and handle, about those 'plain matters of fact' among which common-sense daily moves with its most confident step and most self-satisfied smile. Presumably, however, this is either because too direct a vision of physical reality was a hindrance, not a help, in the struggle for existence, because falsehood was more useful than truth,—or else because with so imperfect a material as living tissue no better results could be attained. But if this conclusion be accepted, its consequences extend to other organs of knowledge beside those of perception. Not merely the senses but the intellect must be judged by it ; and it is hard to see why evolution, which has so lamentably failed to produce trustworthy instruments for obtaining the raw material of experience, should be credited with a larger measure of success in its provision of the physiological arrangements which condition reason in its endeavours to turn experience to account.

273. Extend the boundaries of knowledge as you may ; draw how you will the picture of the universe ; reduce its infinite variety to the modes of a single space-filling ether ; re-trace its history to the birth of existing atoms ; show how under the pressure of gravitation they became concentrated into nebulæ, into suns, and all the host of heaven ; how, at least in one small planet, they combined to form organic compounds ; how organic compounds became living things ; how living things, developing along many different lines, gave birth at last to one superior race ; how from this race arose, after many ages, a learned handful, who looked round on the world which thus blindly brought them into being, and judged it, and knew it for what it was : perform (I say) all this, and though you may indeed have attained to science, in nowise will you have attained to a self-sufficing system of beliefs. One thing at least will

remain, of which this long-drawn sequence of causes and effects gives no satisfying explanation; and that is knowledge itself. Natural science must ever regard knowledge as the product of irrational conditions, for in the last resort it knows no others. It must always regard knowledge as rational, or else science itself disappears. In addition, therefore, to the difficulty of extracting from experience beliefs which experience contradicts, we are confronted with the difficulty of harmonising the pedigree of our beliefs with their title to authority. The more successful we are in explaining their origin, the more doubt we cast upon their validity. The more imposing seems the scheme of what we know, the more difficult it is to discover by what ultimate criteria we claim to know it.

Medical.

[See also "CANCER RESEARCH" and "CONSUMPTION".]

274. Is it not true, and am I not justified in saying, even in your presence, that there is no body of men, select them how you will, or where you will, who have given to the public to which we now appeal a larger measure of gratuitous service? In every district and parish, almost in every street, you will find that the medical profession have ever been ready to come, with or without remuneration, to the succour of the unfortunate, and that they have lavished the treasures of their time and skill on those who, from their worldly circumstances, are very ill able to repay them. . . . I cannot forget that great as is the debt that humanity in the past owes to those who have devoted themselves to the healing art, that debt is increasing, and, so far as we can venture to prophesy of the future, seems likely to increase in a rapidly expanding ratio. The application of science to all the arts, the successful application of scientific method to a growing knowledge of all the arts is one of the most remarkable characteristics of this and the last generation, but I do not think that that characteristic of our age shows itself more prominently or characteristically than in the region of the great art of medicine. There science and practice are ever more and more day by day joining hands, every day medicine is becoming less the work of the empiric, more and more the work of the scientific expert. And I do not know that we are over-sanguine in anticipating a period when we shall have not only an incomparable insight into the nature and cause of disease, but shall also be able to command in a far larger measure than we now can pretend to do the remedies which may be successfully applied. A friend of mine with whom I was discussing this happy prospect of scientific medicine told me that he did not see any valid or sufficient reason why, when medicine was in the immediate future better understood, and when those temperate habits which medicine may counsel, but cannot enforce, obtain a deeper and larger hold on the great masses of our population, as undoubtedly they will, the span of human life should not be extended to 120 years. I do not know whether that forecast is over-sanguine, but it suggested to my mind, at all events, the reflection which has frequently occurred to me before, which is that, after all, death is not the enemy which the medical profession has to fight against; it is rather pain, and that disease which renders us ineffectual for practical work. I often hear of cases in which I am told that by the extraordinary skill of great practi-

tioners, by the appliance of all the most recent medical discoveries, it has been found possible to prolong for some few days or weeks a doomed life. Those are among the performances of your science, not its triumphs ; and for my own part I think if medicine can ease us of our pain, if it can render that span of life allotted to us more available for practical work, more efficient for doing the duty cast upon us, more useful for developing the activities with which we have been endowed, we may relieve it of the duty of prolonging a painful and useless life—a life painful to the possessor, a life it may be useless and worse than useless to those who wait around the sick bed. After all, if death be an enemy, death is sure to conquer us ; but it may be—indeed, it has been—within the resources of your art to relieve from suffering, in itself an evil which only those who have gone through it perhaps can properly estimate, and restore to active life many who would otherwise linger year after year, a burden to themselves, and, what must even weigh more upon them, a burden to all those whom they love best. . . . [1895.]

275. Now, it is particularly gratifying to me to be able to take part in a ceremony connected with this great hospital, of which I have so lately had the honour of becoming a Governor. It is a great satisfaction to me that the occasion on which I first have anything to do with its practical work should be in relation to that portion of its double labours which deals with medical education. As most of you are aware, the hospital is not only concerned with the alleviation of sickness and pain among the poor, but it is also one of the great schools of medicine which have been in the past, and must be in the future, among the principal sources from which the medical profession is to be recruited ; and it is that side of the labours of the hospital, on which, for a very few moments, I should like to engage your attention. The other side appeals directly and immediately to the sympathies of all. There is no man who devotes himself, even in the smallest degree to philanthropic work, but has had his attention drawn both to the financial needs of our London hospitals, and to the admirable work which they have done in this vast accumulation of humanity with which those interested in modern London have to deal. . . . But the medical side—the educational side—of this great institution does not appeal, and cannot appeal, in the same immediate manner to the sympathies and support of the general public ; and yet I would venture to say that it really is of not less importance than the other side. No doubt the medical side exists for what I may describe as the curative side, or the hospital side ; but the hospital side could itself not flourish unless the medical schools of this country, and of other countries, engaged as they are in the furtherance of the work of medical research, are liberally aided in the great work they have to perform ; and what I have always felt is that the public do not thoroughly realise the responsibility which is thrown upon them in this respect. We talk, and we talk truly, of the enormous advance made

not only by the sciences generally, but also by the science and the art of healing, whether it be in the department of surgery, or in the department of medicine. That progress has of recent years been indeed enormous, and far beyond what, I think, the general public is really aware of; and yet, great as that progress has been, I think that the experts for whom I speak will not differ from me when I say that there is every prospect of the progress being still more rapid in the future, if only the conditions of that progress are thoroughly realised, and public assistance is adequately brought to promote that end. The public, however, cannot be expected easily to realise what are the new necessities to which every medical school is subject, how those necessities have arisen, and how they ought to be met; but in truth there are three considerations which, if we bear them in mind, will fully explain, I think, the situation in which this and other great medical schools have been placed by recent progress.

There was a period at which almost the only subsidiary sciences to the art of healing—the only ones of practical value—were anatomy and physiology. But all that has been changed, and at the present moment if a man is to make progress in medical research he must draw his inspiration not merely from those sciences which deal with the human organism immediately, but with chemistry and with almost every branch—I think I might say every branch—of physics. But while that tendency has, on the one side, been making itself manifest; while the interdependence of all these sciences is becoming more and more manifest; while the assistance which each gives, and must give, to the other, is becoming more and more evident, the separate sciences themselves are so rapidly accumulating facts, are growing so enormously, that specialisation necessarily and inevitably is set up in every one of them: so that you have the double tendency of an interdependence between the sciences, which makes it necessary for any man who would further any one of them to have some working acquaintance with many others, and, at the same time, you have specialisation thrust upon you by the mere accumulation, the rapidly increasing accumulation, of facts in every one of the separate sciences of which I have been speaking.

Now, the result of this double tendency is that you must rely more and more for your work in research upon people whose main labour is research. You cannot expect a man in the interstices of a busy life, in the interstices of a great practice, to do much towards the advancement of his science. I have been amazed myself at the way in which doctors in large practice keep abreast of the ever-growing needs of their profession; but to ask them, in addition to a great practice, to carry on immense labours in research is to ask what, after all, very few men are able to accomplish. No doubt there are exceptions—brilliant and splendid exceptions—but the exceptions themselves in this case only prove the rule, and I am convinced that I shall have upon my side every man practically acquainted with the needs of the case when I say that the work of advancing medical knowledge must, on the whole, more and more fall into the hands of those who devote themselves

to research rather than to the overwhelming labours of daily practice. . . . The man who would succeed in research, the man who at all events desires to devote himself to research, must not be asked to burden himself with other labours. He has upon his shoulders not merely what I may call the specialist work in his profession, but he must have a sympathetic eye, an appreciative eye to everything that is going on in other departments of science, so that even where he cannot follow those other departments mentally, he knows by instinct of genius where to pick up those new discoveries which may help his own special branch of research. For men of that kind I think we require further endowment. I have all my life been an ardent believer in a cause which is often laughed at—the cause of the endowment of research. In that cause I most firmly believe, and I think there is no branch of knowledge in which it may find a more useful field of application than in that of advancing medical knowledge. It is wonderful to think how the public are prepared to pay, and in my opinion rightly prepared to pay, for the services of those whose clinical genius, whose power of absorbing all that is practically useful in the knowledge of their day, whose bedside genius—if I may so describe it—demands, and ought to have the fullest recognition—it is wonderful, I say, how the public are prepared to pay for that kind of genius, but apparently put aside with indifference the not less essential kind of genius which deals with the progress of knowledge, and the furtherance of invention. This is not selfishness; I think it is latent imagination. The work of the medical practitioner is seen at once; its value can be immediately appreciated; but he who spends his life in the pursuit of the secrets of nature, working in his laboratory, may very often receive no public recognition at all during his life, except from that restricted circle of experts who alone, after all, are capable of forming any valuable estimate as to his merits. . . . [1898.]

276. Remember what is the life of a general practitioner in a great practice. I do not believe there is a harder life. I am sure there is no more beneficent life led by any set of men or any profession on the face of this earth. It is a hard day-to-day and night-to-night struggle with disease; no certainty of repose, no habitual opportunity of study, constant aid to the poor, to the needy, and to the suffering—aid in many cases but ill-remunerated, aid which calls forth constantly and steadily an amount of unknown and unrecognised self-devotion which, I am sure, must move the heart of anyone who thoroughly realises its amount. Now, to these hard-worked and over-worked general practitioners comes the duty of attempting to make themselves familiar with the latest researches in medical science, the accumulated wealth of medical experience, the vast mass of information contained in medical and other scientific journals concerning the last results of medical science. How is it to be done? How can it be possibly done under existing conditions? It cannot be done; and the Polyclinic

has set itself to work to give to these men in their rare opportunities of leisure, on the easiest and on the cheapest terms, an opportunity of bringing themselves abreast with medical science in its latest development, of coming into personal contact with the leaders of medical thought, and of each of them carrying back, into their own region of special activity, this augmented knowledge, which it were hardly possible for them to obtain under the existing conditions of stress and strain in which they live.

Think what this means, not to these medical gentlemen themselves, but to their innumerable patients. Think how much an institution on the lines of the Polyclinic—developed as I hope to see the Polyclinic—may do, not for the education of the medical student, which is amply provided for, but for his education after he has become a medical man, when he is, perhaps, as much in need of those educational advantages for which no machinery at present exists in these islands. . . . [1901.]

277. I should be going beyond my depth were I to deal with these important, vital, and leading aspects of the medical science of to-day, and I have only mentioned them to lead up to this question, which I put to you in all solemnity and seriousness—Can we honestly say that in this great development of medical knowledge and therapeutic science this country has taken the leading part which it ought to have taken?

I speak in the presence of gentlemen whose names are of European fame, and who certainly have done their part in the spreading of medical knowledge and in the furthering of medical research. I do not forget that in, perhaps, the two branches of medical advance which have done most to save human life and to diminish human pain—I mean the use of anæsthetics and the antiseptic surgical treatment—this country may claim to have taken the lead. Happy will be the century on which we are entering if other discoveries are made which will do as much to decrease human suffering. And yet, when I have made all allowance for these great claims on the gratitude of the world, which, I think, we possess, the fact remains, so far as I can judge, we cannot say that, as compared with Germany, or with France, or with Italy, we have done all that, perhaps, we might have done as pioneers of medical discovery. I may be wrong—it is only a personal opinion—but I fear that any investigator who set himself impartially to examine the respective claims on the gratitude of mankind of these great nations would not be able, in all honesty and fairness, to say that we had any claim to take the lead. If that is so, do you not think that we—the public, the unprofessional and the unscientific public—are in part to blame for that sort of thing? Do you think that we have shown a recognition of the duties which fall upon us in this matter? We are proud to say that in this country we leave to private enterprise and to private benevolence duties which in other and less fortunate countries are entrusted to the Government. That is true; but if that policy is to be successful you

must have the private enterprise and the private benevolence ; and have we shown the possession of those great qualities in this particular to the extent we ought to have done ? Personally, I grieve to say that I have no doubt as to the answer that must be given. I do not believe any man who looks round the equipment of our universities, of our medical schools, and other places of education, can honestly say in his heart that we have done enough to equip research with all the costly armoury which research must have in these modern days. We lag behind—we, the richest country in the world, lag behind Germany, France, Switzerland, Italy. Is it not disgraceful ? Are we too poor, or are we too stupid ? Do we lack the imagination required to show what these apparently remote and abstract studies do for the happiness of mankind ? We can appreciate that which obviously and directly ministers to human advancement and human facility, but we seem, somehow or another, to be deficient in that higher form of imagination, in that longer sight, which sees in studies which have no obvious, necessary, or immediate result the foundation of a knowledge which shall give far greater happiness to mankind than any immediate, material, industrial advancement can possibly do ; and I greatly fear that, lacking that imagination, we have allowed ourselves to flag in the glorious race run now by civilised countries in the pursuit of knowledge, and that we have permitted ourselves, to far too large an extent, to depend upon others for those additions to our knowledge which surely we might have made for ourselves.

It is the result of my unfortunate profession that I am constantly engaged in discussions and in conflicts which at the worst have a party significance, and at the best have but a national significance. The cause I plead now is not the cause of a party nor the cause of a nation—it is the cause of mankind at large. Every discovery which is made in the laboratory in Germany, France, or Italy is the possession, not of those countries, but of the whole world. Let us not be backward in this great international competition, which surely may be said, in some way, to balance that more costly and destructive competition in armaments and, it may be, in commerce. Here, at any rate, the interests of all nations are at one. Here there should be only the rivalry as to what nation should add most to that scientific knowledge on which, more than on the efforts of statesmen, politicians, or soldiers, depends the future progress and happiness of mankind. . . . [1901.]

Music.

278. What is the cause of our delight in Music? It is sometimes hastily said to have originated in the ancestors of man through the action of sexual selection. This is of course impossible. Sexual selection can only work on materials already in existence. Like other forms of selection, it can improve, but it cannot create ; and the capacity for enjoying music (or noise) on the part of the female, and the capacity for making it on the part of the male, must both have existed in a rudimentary state before matrimonial preferences can have improved either one gift or the other. I do not in any case quite understand how sexual selection is supposed even to improve the capacity for *enjoyment*. If the taste exist, it can no doubt develop the means required for its gratification ; but how can it improve the taste itself? The females of certain species of spiders, I believe, like to see good dancing. Sexual selection, therefore, no doubt may gradually improve the dancing of the male. The females of many animals are, it seems, fond of particular kinds of noise. Sexual selection may therefore gradually furnish the male with the apparatus by which appropriate noises may be produced. In both cases, however, a pre-existing taste is the cause of the variation, not the variation of the taste ; nor, except in the case of the advanced arts, which do not flourish at a period when those who successfully practise them have any advantage in the matrimonial struggle, does taste appear to be one of the necessary qualifications of the successful artist. Of course, if violin-playing were an important aid to courtship, sexual selection would tend to develop that musical feeling and discrimination without which good violin-playing is impossible. But a grasshopper requires no artistic sensibility before it can successfully rub its wing-cases together ; so that Nature is only concerned to provide the anatomical machinery by which such rubbing may result in a sibilant gratifying to the existing æsthetic sensibilities of the female, but cannot in any way be concerned in developing the artistic side of those sensibilities themselves. . . . [1895.]

279. The procedure of those who account for music by searching for the primitive association which first in the history of man or of his ancestors conferred æsthetic value upon noise, is as if one should explain the Amazon in its flood by pointing to the rivulet in the far Andes which, as the tributary most distant from its mouth, has the honour of being called its source. This may be allowed to stand as a geographical description, but it is very inadequate as a physical explanation. Dry up the rivulet, and the huge river would still flow on, without abatement or diminution. Only its titular origin has been touched ; and if we would know the Amazon in its beginnings, and trace back the history of the vast result through all the complex ramifications of its contributory causes, each great confluent must be explored, each of the countless streams enumerated whose gathered waters sweep into the sea four thousand miles across the plain. . . . [1895.]

280. In music, the artist's desire for originality of expression has been aided generation after generation by the discovery of new methods, new forms, new instruments. From the bare simplicity of the ecclesiastical chant or the village dance to the ordered complexity of the modern score, the art has passed through successive stages of development, in each of which genius has discovered devices of harmony, devices of instrumentation, and devices of rhythm which would have been musical paradoxes to preceding generations, and have become musical commonplaces to the generations that followed after. Yet, what has been the net gain? Read through the long *catena* of critical judgments, from Wagner back (if you please) to Plato, which every age has passed on its own performances, and you will find that to each of them its music has been as adequate as ours is to us. It moved them not less deeply, nor did it move them differently ; and compositions which for us have lost their magic, and which we regard as at best but agreeable curiosities, contained for them the secret of all the unpictured beauties which music shows to her worshippers.

Surely there is here a great paradox. The history of Literature and Art is tolerably well known to us for many hundreds of years. During that period Poetry and Sculpture and Painting have been subject to the usual mutations of fashion ; there have been seasons of sterility and seasons of plenty ; schools have arisen and decayed ; new nations and languages have been pressed into the service of

Art ; old nations have fallen out of line. But it is not commonly supposed that at the end of it all we are much better off than the Greeks of the age of Pericles in respect of the technical dexterity of the artist, or of the resources which he has at his command. During the same period, and measured by the same external standard, the development of music has been so great that it is not, I think, easy to exaggerate it. Yet, through all this vast revolution, the position and importance of the art as compared with other arts seem, so far as I can discover, to have suffered no sensible change. It was as great four hundred years before Christ as it is at the present moment. It was as great in the sixteenth, seventeenth, and eighteenth centuries as it is in the nineteenth. How, then, can we resist the conclusion that this amazing musical development, produced by the expenditure of so much genius, has added little to the felicity of mankind ; unless, indeed, it so happens that in this particular art a steady level of æsthetic sensation can only be maintained by increasing doses of æsthetic stimulant. . . . [1895.]

281. Dr. Joachim, to whom we desire to do honour, visits us from a country whose greatest gift to the artistic world has been a musical gift. If the music of all other nations in the world were destroyed, we should be poorer by many a great masterpiece, but we might get on. If the music of Germany were destroyed, we should not get on. For two centuries they have produced composers not merely famous in their day, but whose works have stood the test of time, and are still, and, so far as I can see, will be, part of the ordinary musical fare of the lover of music. That is a great thing to say of the work of any nation, and happy are they in the reflection that this artistic work is not bound by limitations of space, and by a mass of re-duplication and repetition, like pictures of great buildings ; nor yet is its diffusion limited by the barriers of language—barriers which no degree of familiarity will enable us to traverse. Wherever there are ears to hear, and wherever there are interpreters to interpret, there the joy which music is capable of giving may be enjoyed, irrespective of nation, irrespective, I had almost said, but certainly untrammelled by, the barriers of space and the barriers of language. . . . [1904.]

282. Music is the art which perhaps most clearly shows how futile is the search for agreement among men of 'trained sensibility'. It is indeed an art which, I may parenthetically observe, has many peculiar merits as a subject of æsthetic study. It makes

no assertions; so its claims on our admiration can have nothing to do with 'the True'. It serves no purpose; so it raises no question as to the relation between 'the beautiful' and 'the useful'. It copies nothing; so the æsthetic worth of imitation and the proper relation of Art to Nature are problems which it never even suggests. From the endless controversies about Realism, Idealism, and Impressionism, with which the criticism of other arts have been encumbered, musical criticism is thus happily free: while the immense changes which have revolutionised both the artistic methods and the material resources of the musician—changes without a parallel either in literature, in painting, in sculpture, or even in architecture—have hindered the growth of an orthodox tradition. Music thus occupies in some respects a place apart: but its theoretic importance cannot on that account be ignored. On the contrary, it becomes all the more imperative to remember that no æsthetic principle which fails to apply to it can be other than partial and provincial. It can never claim to be a law governing the whole empire of artistic beauty.

That collisions of expert taste abound in the history of music will be generally admitted. But leaving on one side minor oscillations of opinion, let us take, as an illustration of our point, the contrast between the beginning and end of the period during which music has played a known part in European culture.

The contrast is certainly most striking. Our knowledge of ancient music is unsatisfactory: but it seems to be admitted that among the Greeks harmony, in the modern sense, was scarcely used, and that their instrumentation was as rudimentary as their harmony. Of their compositions we know little. But it is plain that, however exquisite may have been the airs rendered by means so modest as these, their charms to modern ears would be thin and colourless compared with those that modern music itself is able to convey,—not because the Greek genius was inferior, but because it had not the means, in this particular art, of giving itself full expression. Titian limited to a lead pencil. [1908.]

283. Music has ever been one of the great arts in which Welshmen have excelled. A great Welsh writer said that Wales and some parts of Yorkshire were places in which choral singing was natural to the people. Believe me, there cannot be a greater gift to any people. There cannot be a gift which carries with it higher pleasures, pleasures more easy of

attainment, which have no after-sting, no after-taste of evil, which raises, and must raise, the whole level of civilised pleasures among people who practise them. Music knows no national barriers; it is not subject to the limitations which unhappily beset language. Music speaks to men of all races, of all tongues, of all nationalities. It speaks to them in tones which are understood of all, and it speaks to them in language which appeals more immediately and more directly to their imaginations than perhaps any others of the arts, and, more than this, as it seems to me to be a good and true sense of the much-abused word, the most democratic of all the arts. Pictures are apt to be the luxury of the rich. They cannot have any universality. Do what you will, put them even in your galleries, but if they are not in their original setting they lose something. They lose also by the very fact that they are merely gazed upon by the stream of passers-by. They are not lived in, as pictures ought to be. You have to consider that music is subject to no such limitations. Music does not pay death duties. You have not to find £80,000 to prevent music going out of your country. You have not got to consider whether a foreign millionaire will not absorb all your works of art as time goes on. Music is of the people, and at its best should be, and ought to be, the greatest of popular arts. . . . [1909.]

284. We, alas! in this country cannot boast names like Haydn and Bach: nor are we in a position to celebrate the anniversary of men who in foreign countries have led the great art in which we are all interested.

There was a time, indeed, when Britain bore its full share in the output of music, when we were not behind our Continental friends in our contributions to the art. I suppose we may say that without undue pride, as representing the facts right down to the middle of the seventeenth century, and perhaps even later, to the death of Purcell. Why, after that, for a long period we have to admit ourselves to have been, relatively speaking, barren in original production, I know not; nor perhaps is it within the power of any historical investigator to say why in this century such-and-such a country excelled in this and that art, and why a period of splendid production has so often in the history of the world been followed by as long a period of comparative barrenness. The fact, however, I think all will admit, is as I have stated it; and it is even possible to say—putting aside the overpowering personality of Handel, who can hardly be called an English musician, though so much of his art was produced in England, and may have been influenced by his English environment—it is unquestionably true to say, that the original production in the eighteenth century and in much of the nineteenth century of British musical art centred in the main round Church services in the great Cathedrals, where a school, if not of profound originality, at least of great merit, has never ceased to flourish.

I think there are signs—I think there have long been signs, and much more than signs—that this state of things is not only coming to an end, but has come to an end. And I certainly can look back over the period of my own life and see how, year by year, more men of original productive capacity have come to the front in this country, until we can now, I think, look our Continental friends in the face and say that England—Britain (your country and mine, Sir Alexander Mackenzie), has at last come into the process of taking its place among the great creative musical communities.

It is fit, then, that at such a moment music-lovers from all parts of the world should come here and meet each other in conference. The value of such Conferences in all branches of learning and of art has long been recognised, and I see no reason why in music it should not be as fruitful of admirable results as it has proved itself in other departments. Indeed, when I look down the list of subjects which are going to be discussed, I do not think any member of the Congress will complain that the sphere of discussion is unduly limited. The history of the art, the theory of the art, matters æsthetic, matters dealing with music as it was, with music as it is, with the evolution of the art, which of all the arts is at this moment showing itself more eager about the future than about the past, looking forward with a more confident belief to what it is going to be, and not merely casting, as some of the arts are apt to do, longing glances back into the historic past, appraising what has been done—music, I say, which is in this living and vital stage, is surely, of all the arts, the one in which those who take an interest in its future, as well as those who have a learned knowledge of its past, may meet together and exchange ideas.

Indeed, I think from all points of view discussion about music, as well as the practice of music and the creation of music, is well deserving the attention of those interested in æsthetic problems. I believe that it would be well worth while for all those who take a deep interest in that kind of problem, for a moment to put aside all other arts and concentrate on music; and for this reason, that we have got, through centuries of discussion on matters literary and artistic, into—I will not say, a jargon of criticism; but we employ terms as if they were of universal validity in literature and other arts, having absolutely no meaning that I can see when applied to the art in which we are primarily interested. You may see such phrases as “romanticism,” “classicism,” “materialism,” and “impressionism,” scattered up and down programmes at concerts of good music; but they really have no meaning and no relevance to musical art. They are borrowed from literature, and when they are applied outside the scheme of literature to the æsthetics of music, they become, in my opinion, if not absolutely unmeaning, as nearly unmeaning as possible. For music has no element of copying Nature like art. It is not framed upon a study of Nature or man, as literature is; it stands by itself, self-supporting, self-sufficing, not having to borrow either terminology or ideas from any of the sister arts.

There is another most interesting peculiarity of music from the philosophic point of view, which is that of all the arts it seems to be more intimately connected with what I may call dry scientific facts. You can state in terms of mathematical physics certain very important truths with which music is intimately connected; and at first sight it might seem, therefore, as if science was to give you some assistance in building up a theory of musical æsthetics. I confess my own opinion is that that belief will prove to be illusory. The circumstance to which I have adverted is a most interesting fact. It separates music from all the other arts and puts it on quite a separate basis. And although I do not believe that out of the mathematical theory of the scale or of the chords, or of the theory of harmony, you can ever deduce anything in the nature of a true musical æsthetic, still, this intimate relation with mathematics and physics puts it upon entirely separate ground.

I am afraid I have started off rather upon a hobby of my own which may interest very few of those who are listening to me—and I will revert to what is more properly the subject which has brought us here together, which is the interchange of social, scientific, and artistic ideas upon the great art of which so many I am addressing are distinguished representatives.

Leaving the philosophy of æsthetics far on one side, and turning our gaze to what is, after all, the object of all art, the joy of human beings, surely we stand in these modern times at the head of all the other arts, and have advantages which none of them can pretend to. The painter of pictures, endow him with what genius you like, after all embodies his ideas upon a piece of canvas which, from the very nature of the case, can only be in one place at one time; which can at one moment give pleasure to only a very limited number of human beings; which cannot be moved without difficulty and without risk. Music is independent of space. You can have a symphony of Beethoven played in every musical centre of the world at the same time, if you have a sufficiency of musicians capable of rendering it. Time does not touch it. Neither does that other great barrier to the common artistic enjoyment of civilised nations, the difference of language, affect it. The translator of a masterpiece is not merely a copyist; his personality is not merely interposed, like the personality of all copyists, between the spectator and the original producer. He is a copyist in a different medium from that in which the original was produced. To compare painting with language, you are compelling him to copy in *tempera* what was painted in oils, or to render as a drawing what was originally a coloured picture. No progress will make it possible for a masterpiece of one language to be in the same full sense a masterpiece in another. It must always be confined to the country of its birth, and in the main to those who have learned from infancy the language in which it is rendered. No such limitations attach to our art. All can understand it, whatever be their mother-tongue. And now that the thoughts of so

many of us are occupied in extending widely among the whole community the highest, the greatest, and the best of pleasures, I am perfectly certain that of all the arts and of all the finer forms of imagination, that which chooses music as its means of expression is the one which has the greatest future among the masses of all nations. . . . [1911.]

Handel.

[*The extracts under this heading are taken from the article contributed to the "Edinburgh Review," January, 1887.*]

285. In music, not less than in poetry and painting, each generation desires to have, and insists on having, that which best suits its moods,—which most effectually appeals to the special quality of its emotions: and this universal principle of change, which makes it necessary that the artistic productions of every age, be they better or be they worse, shall at least be different from those of the preceding one, has been in the case of music supplemented by other causes which have made the process of alteration one not of change merely, but also of growth. For music alone among her sister arts has profited by the material development of society and the progress of mechanical invention; music alone has been able in any important respect to multiply the methods by which she moves the imagination of mankind. In poetry and in painting, the work of every age and of every man of genius will doubtless be distinguished by its characteristic note. Yet, however differently used, the artistic resources of a poet or a painter to-day are not materially greater than those which a poet or a painter of the sixteenth or seventeenth century had at his command. We cannot flatter ourselves that we know more of colouring than Titian, or of versification than Milton. We could not teach drawing to Michael Angelo, nor rhythm to Shakespeare. In music the case is otherwise. Since the death of Handel there has not only been a remarkable development of musical form, an increased freedom in the use of harmonic resources, and a prodigious growth both in the art of instrumentation and in the variety of instruments, but the modern musician has at his command far better players, far larger orchestras, and far more powerful choirs, than his predecessors; so that the pettiest composer of the year eighteen hundred and eighty-six is able to produce effects of which Handel and Bach never dreamed, and may employ methods of which they were utterly ignorant. Thus it comes about that we are divided from the

great musical creations of bygone times by more than the inevitable veil which, talk as we may of the immortality of genius, does always somewhat alter, and must, in some cases, dim our perception of the artistic work of the generations which have preceded us. Whatever be the language in which these may speak, whether that of poetry, of painting, or of music, their voices come to us across the centuries with something, be it ever so little, of a foreign accent. But in the case of music, their language has not merely a somewhat unfamiliar turn, it is in certain important respects imperfectly developed; and the ideas it expresses are necessarily limited with its limitations. So it comes about that the man of average musical cultivation is incomparably more dependent on modern productions than the man of average literary cultivation. Go back a century and a quarter, and take the year 1760, the one which followed Handel's death: how poverty-stricken would our libraries be if all the literary works of imagination which appeared before that date were suddenly destroyed,—if our earliest playwright was Sheridan, our earliest poet Goldsmith, our earliest master of prose Dr. Johnson! It is not merely the student who would suffer by such a catastrophe, the whole educated world would lose an important fraction of its daily literary food. But with music the case is otherwise. The largest portion of the works of even the great musicians before the date I have named have either perished beyond hope of recovery, or slumber in their original manuscript undisturbed on the shelves of our libraries and museums. And it would, I think, be rash to say that, with the exception of Handel and Bach, there is a single composer whose most important works are the familiar companions of the ordinary musical amateur.

286. It must, I think, be admitted, in the first place, that he cannot be said to have aided the advance of music in the same degree, or even in the same sense, as some other of the great composers I have named. We can assert with confidence that without Haydn we should not have the Mozart we know; that without Mozart we should not have the Beethoven we know; and that without Beethoven the whole musical history of the nineteenth century would have been utterly different from what it is. No such proposition can be advanced respecting Handel. In England, he left behind him some humble imitators, who were more successful in stealing his phrases than in catching his inspiration, but he

left no school. On the Continent he did even less. His works form, as it were, a monument, solitary and colossal, raised at the end of some blind avenue from which the true path of advance has already branched; a monument which, stately and splendid though it be, is not the vestibule through which art has passed to the discovery and exploration of new regions of beauty.

Intimately connected with this peculiarity is another, deserving of notice in the same connection. Handel was not, as regards the technical method of producing musical effects, in any sense a great innovator; as regards form, he rather exhausted the possibilities of those already in use than added to their number. Consider, for example, his overtures. Delightful and spirited as these are, admirably as they are contrived—not, indeed, like modern overtures, to give a kind of foretaste of the drama which is to follow, but—to attune the minds of the audience to its opening scenes, they are, with rare exceptions, framed on one unvarying model. For more than fifty years he was content to preface opera and oratorio alike with the kind of introduction that was in fashion when, as a youth of nineteen, he wrote his first opera at Hamburg; and the overtures to the “Messiah” and to “Samson,” however in other respects superior, did not differ in form from those with which, two generations previously, Lulli had delighted the Court of Louis the Fourteenth.

Similar observations may be made respecting his operas. They were, no doubt, by very much the best works of their kind which had ever been produced. Many of the airs which they contain are still familiar to us; many more deserve to be so; and, even when divorced from their dramatic setting, may continue to give exquisite delight. But on the whole it would, I suppose, be true to say that after expending for more than thirty years his time, his money, his health, and his unequalled genius, on the cultivation of the Italian opera, he left it richer, indeed, by innumerable masterpieces, but in other respects very much where he found it—fettered, that is, by endless conditions, imposed not so much to satisfy the requirements of dramatic propriety as to moderate the rivalries of competing singers. It seems at first sight strange that any man of genius should have patiently submitted to rules which, from the point of view of art, were perfectly arbitrary. The explanation is, no doubt, to be found in the circumstance that up to the middle of the eighteenth century (speaking very roughly) the orchestra was a mere adjunct to the voice, and that the revolution, which seems in these

later times to have made the voice a mere adjunct to the orchestra, had not even begun. The modern composer for the stage sometimes writes as if singers were a necessary evil which have, no doubt, to be endured in order to carry on the dramatic dialogue, but which need to be treated with no sort of consideration. If this be a fault in one direction, a point on which I offer no opinion, the early composers of Italian opera fell, or were driven, into the opposite one. They lived at a time when the powers of execution possessed by performers on every instrument (except, it is said, the trumpet) were very inferior to those which are now common, but when the voice was cultivated with an assiduity and a success which have never since been rivalled. The composers could thus command inimitable technical skill in their singers; but the singers required in their turn a degree and a kind of consideration which has never before or since been asked or received by the interpreters of a work of genius from its creator.

287. The greatest works which the world has seen have not been dedicated to an unknown posterity, but have been produced to satisfy the daily needs of their age, and have, therefore, of necessity conformed to the tastes, and usually to the fashion and the prejudices, of the period which gave them birth. So it was with Handel's operas; and, without doubt, but for two accidental circumstances, it is to the production of operas that he would have mainly devoted himself, to the infinite loss of posterity, even to the very end of his career. These two circumstances were—the rivalries and quarrels already adverted to, which made it impossible profitably to perform operas,—and the observance of Lent, which made it possible profitably to perform oratorios. The debt which all the arts owe to the Church is infinite; but, perhaps, the heaviest liabilities have been incurred by music. It was the liturgies of the Church which supplied the inspiration of all the greatest compositions down to comparatively recent times; it was Church choirs which supplied the musical training; it was Church funds which supplied the necessary endowments. Slight, indeed, would be our musical heritage if all was subtracted from it which had been written for the Church, or by those whom the Church had helped to teach or to support. These benefits to art were due to the *positive* action of the Church. That Handel devoted himself exclusively in his later years to oratorio is due to its *negative* action. During

Lent, operas were discontinued, and it was mainly through the accidental advantage thus given to oratorio in the 'struggle for existence,' that they were able to contend successfully against their more showy rivals. We owe, therefore, "Israel in Egypt," the "Messiah," "Semele," and "Hercules" to liturgical observance less directly, but not less really, than the "Missa Papæ Marcelli," the "Passion, according to St. Matthew," or the "Mass in D".

288. But the superiority of the oratorio over its dramatic rival as an 'art form' is not more decisive than its superiority over its Church rivals, the Passion and the Mass. We must not be misled in this matter by the splendour of the music associated with these names; for it is not the music I am discussing, but the use to which the music has been put; the 'poetic form' to which it has been wedded. Now the libretto of a Passion music was simply a mediæval miracle play born out of due season. It had all the limitations which arise from the fact that it dealt with only one subject in only one way, added to all the limitations due to the circumstance that its object was not æsthetic, but devotional—that it was intended to promote, not pleasure, but edification. It is impossible but that the music with which it was associated should suffer from these disadvantages; that it has so suffered may be inferred from the fact that it has been (comparatively speaking) seldom set by musicians of genius, that of all the sittings there is but one in which posterity takes much interest, and that to do full justice to this one we have to remember that it must be judged from the point of view of a religious ceremony in which the audience were expected to take a part.

Observations not wholly dissimilar may be made respecting the Mass as a theme for musical treatment. If intended for use in church, it can only be regarded as an accessory to the most solemn act of Christian worship, and must necessarily be interrupted by those parts of the service which are not sung by the choir. If intended for the concert-room, it can only be considered as a sacred cantata on a somewhat extended scale, of which the succession of ideas, however consecrated by usage, has been determined by liturgical and not by artistic considerations.

The oratorio, then, stands pre-eminent, at least in the infancy of orchestration, among all the modes in which music may be wedded to dramatic poetry. It, and it alone, gives the musician the utmost

latitude in the choice of his subject, and in the employment of his resources. It is Handel's glory to have perceived its capabilities, and to have developed them in a manner undreamed of by his predecessors, and unsurpassed by even the greatest of his successors. He brought to this task a peculiar combination of gifts. His long connection with the operatic stage had brought to perfection the dramatic genius and the inexhaustible flow of melody which he inherited from Nature. He was able to combine this with a power of choral composition already exercised in the great series of "Chandos Anthems," in the various settings of the "Te Deum," and in other compositions for the Church, and which, in its kind, has never since been approached. All that was great in opera, all that was great in Church music, together with much that stage limitations excluded from the first, and religious feeling from the second, thus united to adorn dramatic narratives, which, however indifferent as literature, were seldom deficient in powerful situations well fitted for musical treatment.

289. Rarely, therefore, unless in the case of a *pièce d'occasion*, do these borrowed pieces bear the marks of being foisted into their places to save the composer trouble, or to cover a momentary failure of inspiration; in the great majority of cases (I do not say in all) the appropriated ideas seem only then to have found the setting and the use for which nature originally intended them, when Handel impressed them into his service. They are wanderers, which have at last reached their home,—migrating souls, which, not till then, have found their fitting and perfect embodiment.

This, I apprehend, indicates the test which we ought to apply in forming a judgment on the artistic merits of a plagiarism. If the borrowed fragment shows like the marble capitol of a Corinthian column built into the brickwork of a mediæval wall, the theft is a mistake; and mistakes are crimes,—indeed, the only crimes recognised in the jurisprudence of art. But if it not only fits harmoniously into the new structure, but shows there for the first time its latent capabilities of beauty or of grandeur, then, whatever judgment we may pass on the morality of the plagiarist, the plagiarism, as I conceive, stands justified at the bar of criticism. To suppose, indeed, that the originality of a work like "Israel in Egypt" is affected by any amount of such plagiarism as I have described seems to me to ignore the essence of that in which creative originality consists.

Of all Handel's works, none perhaps owe less than the "Messiah," and none owe more than "Israel," to the labours of other composers. Of these two immortal creations it is hard to say which is the most perfect. But there can be no doubt, as I think, not only that "Israel" is the one most characteristically Handelian, but that it stands out amid all creations of the last century, whether of poets, painters, or musicians, unique in its unborrowed majesty. To suppose that any amount of laborious grubbing among the scattered MSS. of forgotten musicians can shake a conclusion like this, if in other respects it be well founded, is as rational as to suppose that, by dint of sedulous inquiry, we could mete out the glory of having built St. Paul's among the quarrymen who provided the materials.

290. I turn to the more grateful task of dwelling for a moment on the nature and extent of our debts to him. And perhaps, if I had to describe his special and transcendent merit in a few words, I should say that it consisted in his unequalled power of using chorus to express every shade of definite dramatic emotion. And in this connection I do not think sufficient attention has been paid to the astonishing range which Handel attempted to cover in his choral compositions, or to the success which attended his efforts. Other composers, though surely not many, have equalled him in the dramatic treatment of the solo voice. One other man has equalled him in the easy and admirable mastery of choral technique. But no man has equalled him, scarcely any man has tried to equal him, in the free application of chorus to every dramatic purpose, and to the delineation of every human emotion which language is capable of describing. Before his time, and to no small extent since, chorus writing on a grand scale was reserved almost exclusively for the service of the Church. It was used, with scarcely an exception, as the vehicle of devotion and as the handmaid of liturgical observance—an august and splendid function, but one, from the very nature of the case, circumscribed and limited. No art, indeed, has exhausted, or will ever exhaust, the possibilities of religious feeling. But no art has consented to confine its efforts to the expression of religious feeling alone. Sooner or later, each has sought new worlds to conquer, and, so far as regards music, with which alone we are now concerned, it is to Handel that we owe the most convincing proof that the greatest resources of chorus

could find a use outside the limits of Passion music, Anthem, and Mass, in the vast and varied field of secular emotion.

291. Even of the "Messiah," it would not be accurate to say that it is religious in the same sense (though doubtless it is so in as true a sense) as the Mass in B minor. A Mass, like all other music that is or may be used for ecclesiastical purposes, is in the main intended to give heightened expression to the religious feelings of the individual believers engaged in a common act of worship. The "Messiah," on the other hand, is a drama, though a drama unique in its kind. While it might be too much to say that worship is absolutely excluded from it, since it incidentally contains, not prayer, indeed, but praise, yet worship is in no sense its object, but, as in the case of other dramas, the presentation of a series of facts, external to the audience, united into an artistic and organic whole. But, though a drama, it is not an historic drama. If it touches, when necessary, on such historical events, as, for instance, the Nativity, it does so only in their most generalised and symbolic form, not as events in a chronological narrative. Its theme is nothing less than the New Dispensation, as understood and accepted by Christendom ; and only familiarity, I think, blinds us to the singularity of the subject, and the skill with which it has been treated by librettist and composer (if, indeed, these are, in this case, to be distinguished). The dangers of the subject, artistically speaking, are obvious. The composer, with such a theme to deal with, might have been tempted to set to music a theological system ; he might even have had the perversity to make his system controversial, and given, in admirable counterpoint, his special views on justification by faith and baptismal regeneration. Handel committed no such error. The work is perfect, not merely in its separate parts, but it is perfect as a whole. Everywhere the emotional side proper for musical treatment has been kept before the hearer ; and, through the admirable selection of the words, the theme has not unfrequently risen to heights where Handel's strength of wing, and his perhaps alone, has been able to follow it. Few even of the greatest among poets, musicians, and (since the Revised Version, we may now add) scholars, have succeeded in touching the words of our English Bible without rushing on disaster. That which they have found strong they have too often left feeble. That which they have found sublime they have not seldom left ridiculous.

Of Handel, and of Handel only can we say that the most splendid inspirations of Hebrew poetry gain an added glory from his music, and that thousands exist for whom passages of Scripture which have for eighteen centuries been very near the heart of Christendom acquire a yet deeper meaning, a yet more spiritual power through the strains with which his genius has inseparably associated them.

292. Our first impression, perhaps, of the composer's choral style is that, putting aside music of a strictly religious kind, it lends itself most easily to the expression of popular sentiment in all its massive directness. A nation's mourning or a nation's triumph, national thanksgiving, national worship, the din of battle and the song of victory—these may seem the subjects best suited to the large canvas and the broad touch of the Handelian manner. Yet this would, perhaps, be a rash judgment unless we can show that he fell short of success in dealing with subjects and situations of a different kind. Love, which occupies a large space in Handel's as in all other dramatic narrative, and which is dragged into his Biblical oratorios in a manner which not seldom verges, according to modern ideas, on the ludicrous, naturally falls, as a rule, to be treated by the single voice or in duet. But the three choruses I have already quoted, "Draw the tear from hopeless love," "May no rash intruder," and "Wanton god of amorous fire," absolutely diverse as they are both in sentiment and musical treatment, are a sufficient proof that the writer of "Love in her eyes sits playing," and of "Where e'er you walk," could, when he so desired it, throw as much passion into his choruses as he could into his solos. Again, what could be more perfect than the manner in which the composer of "Israel in Egypt" has caught the pastoral note in "Acis and Galatea"? The task was far from an easy one. With rare exceptions it may be asserted that every poem of the last century, in so far as it is either pastoral or mythological, is certain to be frigid and artificial, and almost certain to be intolerably dull. Gay's poem was both pastoral and mythological. Yet, as treated by Handel, so far is it from being either frigid or dull, that there is not a frigid or a dull thing in it. The unhappy loves of Nymph and Shepherd are portrayed with a tender sentiment, from which the tragic note is yet carefully excluded. The "Monster Polypheme," grotesque and yet terrible, is not only drawn in both characters with admirable skill, but plays his part as villain of the piece

with no undue or discordant emphasis, while the whole drama is acted against a pastoral background, so fresh and delicious, so like the country on a breezy summer-day, and so unlike the country as it was portrayed in the fashionable pastorals of that period, that it is manifestly not from such sources that Handel drew his inspiration.

293. The variety and dramatic force of the effects which he obtained by the use of chorus are as remarkable and unique as are their simplicity and grandeur. But let it not be inferred from the insistence with which I have spoken of his choruses, either that his airs and recitatives are other than of supreme excellence or that his choruses can be with advantage considered as independent and isolated compositions, apart from the setting in which Handel originally placed them. The truth is that no musician who has ever lived—not Mozart nor Schubert—has been endowed by nature with a more copious, fluent, and delightful gift of melody than he. The aria, indeed, suffers more quickly from the touch of Time than the less fragile structure of chorus or symphony. It wears less well, in part, no doubt, because it was in many cases originally written as much to display the agility of the singer as the genius of the composer. Yet, make what abatement we choose from the enduring merit of Handel's compositions for the solo voice, either on account of their old-fashioned and somewhat formal arrangement into a *first* part, a *second* part, and a *da capo*; or on account of the well-worn 'divisions' and turns of phrase, characteristic, indeed, of the age, but most of all characteristic of a composer who, with all his originality, never sought for a new device when an old one would serve his purpose; enough will still remain to justify us in ranking him among the very greatest masters of song that the world has seen. In his airs and accompanied recitatives, in spite of a manner which here and there verges on mannerism, how he plays at will over the whole gamut of human passion! From triumph to despair, from love to frantic fury and desperation, for whatever purpose it may be required, his power of using melody with dramatic force is rarely found wanting.

294. It must at once be conceded that Handel's genius is but faintly tinged with this special emotional colour. He was an unrivalled master of direct and simple sentiment; of love, fear, triumph, mourning; of patriotism untroubled by scruples, and of

religion that knows no doubts. But he was in no sense *modern*. He no more anticipated a succeeding age in the character of the emotions to which he sought to give expression than in the technical methods which he employed to express them. To many this may seem matter of regret. With some it is undoubtedly the cause why Handel's work arouses in them but a cold and imperfect sympathy. Yet for my own part I cannot wish it otherwise. To each stage in the long development of art there is an appropriate glory. I do not grudge it to those who are the first heralds of a new order of things, in whose work is visible the earliest flush of a fresh artistic dawn. But it is not for them that I feel disposed to reserve my enthusiasm. It is for those who have brought to the highest perfection a style which, because perfected, must have been probably in the main inherited,—who have pressed out of it every possibility of excellence that it contained,—and who leave to their successors, if these must need attempt the same task, no alternative but to perform it worse. Of such was Handel. And rather than lament that, living in the first half of the eighteenth century, he did not anticipate the peculiar triumphs of the nineteenth, let us with more reason wonder at what he succeeded in accomplishing. Among the many excellent qualities of the early Georgian epoch spiritual fervour has never yet been reckoned. Yet in the age of Voltaire and of Hume, Handel produced the most profoundly religious music which the world has yet known. Among the many delightful qualities of its literature, sublimity has not hitherto been counted. Yet in the age of Pope and of Swift, Handel conceived works whose austere grandeur has never been surpassed. This is an astonishing fact. We should have expected, judging from analogy, that the music of that period would have shown excellent, if somewhat artificial, workmanship ; that it would never have aspired to dangerous heights, or been apt to fall below a certain and by no means contemptible level ; that it would have kept within rather narrow limits, but that inside those limits it would have been admirable. And, indeed, these things are true of much of Handel's work and of that of his contemporaries. But what we should never have anticipated is that at the very moment that Pope was producing the most finished of his satires, music should have been performed in London which, in the qualities of imagination and sublimity, we cannot parallel in the literary world without going back to " Paradise Lost ".

295. But though, from the mere fact of their being contemporaries, Handel and Bach inevitably employed the same idiom, the uses to which they put it were wide as the poles asunder. Their genius was utterly different. Their modes of thought were even opposed. And this it is which makes a comparison of their respective merits useless, if indeed it does not, by turning critics into partisans, make it positively pernicious. The truth is, that we are here brought face to face not with a question of *taste*, but a question of *tastes*. It would be as reasonable to try and determine which was the more admirable poet, Shakespeare or Homer, Milton or Dante. Where both have reached supreme excellence in styles which are utterly different, but which all must admit to be great, who is to pronounce judgment? Each man will, doubtless, have his cherished predilection, but who will attempt to impose it on mankind? Those who are the most devoted to one will, perhaps, be the readiest to acknowledge that they could ill afford to spare the other.

296. Time has done much to redress the balance. Side by side the two great names will live as marking in different ways, but with equal lustre, the culminating point of one phase of musical development. The history of art, and assuredly the history of musical art, does not repeat itself. As one kind of tree succeeds another with inevitable sequence in the virgin forests of America, so has each generation its peculiar artistic growth, which after-ages may admire, but which they cannot reproduce without a conscious and but half-effectual effort of imitation. The years that have elapsed since "Israel," the "Messiah," and the "Mass in B" were first given to the world, have been fruitful in musical revolutions, which make it impossible that we should ever see anything like them again. Handel and Bach themselves, if they returned to earth, neither could nor would produce works in any way resembling, possibly not equalling, their former masterpieces. Yet, though (as musical chronology goes) these masterpieces are old, they are not yet antiquated. In some respects we are probably more capable of appreciating them than the audiences for whom they were in the first instance written; and Time, which has raised them up no rivals in their own kind, has not as yet materially dulled their charm. Will this be always so? Will the year 1985 see a Handel tricentenary as successful and as truly popular as the bi-

centenary of 1885, or the (so-called) centenary of 1784? Or will his music by that time have sunk into the purely honorary dignity of an historic curiosity, to be discussed learnedly, to be treated reverently, to be heard in public not at all?

It is hard to say. Literary immortality is an unsubstantial fiction devised by literary artists for their own especial consolation. It means, at the best, an existence prolonged through an infinitesimal fraction of that infinitesimal fraction of the world's history during which man has played his part upon it. And, during this fraction of a fraction, what, or rather how many things, does it mean? A work of genius begins by appealing to the hearts of men; moving their fancy, warming their imagination, entering into their inmost life. In this period immortality is still young; and life really means living. But this condition of things has never yet endured. What at first was the delight of nations declines by slow but inevitable gradation into the luxury, or the business or even the vanity of a few. What once spoke in accents understood by all is now painfully spelt out by a small band of scholars. What was once read for pleasure is now read for curiosity. It becomes 'an interesting illustration of the taste of a bygone age,' a 'remarkable proof of such-and-such a theory of æsthetics'. 'It still repays perusal by those who have sufficient historic sympathy to look at it from the proper point of view,' and so on. The love of those who love it best is largely alloyed with an interest which is half antiquarian and half scientific. It is no longer Tithonus in his radiant youth, gazed at with the passion-lit eyes of Luna, but Tithonus in extremest age reported on as a most remarkable and curious case by a Committee of the Royal College of Physicians.

297. Physical decay slowly despoils us of the masterpieces of painting. Artistic evolution will even more surely despoil us of the masterpieces of music. Let us, then, rejoice that we live in an age to whose ears the sublimest creations of the modern imagination, in the only art which owes nothing to antiquity, have not yet grown flat and unprofitable; that we are not driven to rake painfully among the ashes of the past in order to detect some faint traces of that fire of inspiration which once dazzled the world; that for us "Israel" and the "Messiah" are still "immortal," because they live in our affections, not because they lie in honourable sepulture upon the shelves of our museums,

Naturalism.

Naturalism and Ethics; Naturalism and Aesthetics; Naturalism and Reason; Rationalism.

[See also "M. BERGSON".]

[For further views upon "Æsthetics," reference should be made to
"BEAUTY, AND THE CRITICISM OF BEAUTY,"
"FASHION," and "MUSIC".]

[Extracts 298 to 301 are taken from "A Defence of Philosophic Doubt"
(published in 1879), and extracts 302 to 346 from "The Foundations of Belief"
(published in 1895).]

298. All imperatives, all propositions prescribing actions, have this in common: That if they are to have any cogency, or are to be anything but empty sound, the actions they prescribe must be to the individual by whom they are regarded as binding, either mediately or immediately desirable. They must conduce, directly or indirectly, to something which he regards as of worth for itself alone. The number of things which are thus in themselves desirable or of worth to somebody or other is, of course, very great. Pleasure or happiness in the abstract, other people's pleasure or happiness, money (irrespective of its power of giving pleasure), power, the love of God, revenge, are some of the commonest of them, and every one of these is regarded by some person or other as an end to be attained for its own sake, and not as a means to something else. Now, it is evident that to every one of the ultimate propositions prescribing these ends, and for which, as the ends are ends-in-themselves, no further reason can be given, there will belong a system of dependent propositions, the reasons for which are that the actions they prescribe conduce to the ultimate end or end-in-itself.

If, for instance, revenge against a particular individual is for me an end-in-itself, a proposition which prescribes shooting him from behind a hedge may be one of the subordinate or dependent pro-

positions belonging to that particular system. But whereas the indefinite number of such systems is thus characterised by a common form, it is divided by ordinary usage into three classes, the moral, the non-moral, and the immoral, about the *denotation* of which there is a tolerable agreement. It would be universally admitted, for instance, that a system founded on the happiness of others was a moral system, while one founded on revenge was immoral: and, though there would be more dispute as to the members of the non-moral class, this is not a question on which I need detain the reader. The denotation then of these names being presumably fixed, what is the connotation? or to limit the inquiry, what is the connotation of a *moral* system? The apparent answers are as numerous as the number of schools of Moralists. But however numerous they may be, they can all be divided into two classes. The *first* class merely re-state the denotation; in other words, announce the ultimate end-in-itself of the system, and so, properly speaking, give no answer at all. A Utilitarian, for example, may simply assert that the greatest happiness of the greatest number is for him the ultimate end of action. If he stops there he evidently shows no philosophic reason for distinguishing the system he adopts from the countless others which exist, or have existed. If he attempts to give any further characteristic of his system, he then belongs to the *second* class, who do indeed explain the connotation of the word 'moral' according to their usage of it, but whose explanations have, and can have, nothing to do with the grounds of action or the theory of obligation. The sanction of conscience, the emotion of approval, the expectation of reward, the feeling of good desert, glow of conscious merit—these are all most undoubtedly marks or characteristics of moral actions: how they came to be so, whether by education, association of ideas, innate tendency, or howsoever it has happened, matters nothing whatever, except to the psychologist; that they are so is certain, but the significance of the fact is habitually misunderstood. Are they simply the *causes* of good action? Then they have nothing to do with Ethics, which is concerned not with the causes but with the grounds or reasons for action, and would remain wholly unchanged if not a single man ever had done or could do right. Are they the *ends* of action? Is the fact that they are obtained by a certain course a valid reason for pursuing that course? In that case they stand to a person holding that opinion in precisely the same relation as money does to the miser, or revenge to the savage. They are the groundwork of an ethical

system, and to state them is simply to denote *what* ethical system it is which is being alluded to. Are they, finally, not ends of action, but merely marks by which certain actions may be known to belong to a particular system? In that case, and for that very reason, they can have nothing to do with the grounds or theory of obligation. Therefore, I am justified in asserting that though under the general name 'ethical' are included not only moral, but also non-moral and immoral systems, the distinctions regarded from the outside between these subdivisions are not essential, and has no philosophic import—which was the thing to be proved.

299. No instructive analogy exists between Ethics and Æsthetics. It is true, no doubt, that philosophers have talked about the Good and the Beautiful, as if they were co-ordinate subjects of investigation, and that in ordinary language we say both that a picture 'ought' to be admired, and that an action 'ought' to be performed. Nevertheless, reflecting on actual or possible æsthetic systems, it would seem clear that they must be included under one of four heads. They must belong either (1) to Ethics, or (2) to Psychology, or (3) to Metaphysics, or, lastly, (4) to Metaphysics with an ethical or psychological element superadded. And in none of these cases can Æsthetics be said to rank as a parallel subject of inquiry with Ethics.

The first of these possibilities, namely, that Æsthetics belongs to, or is included in Ethics, I mention chiefly for the sake of completeness. Even those art critics whose denunciations of bad taste approach most nearly to the level of moral reprobation hardly maintain that it is our duty to admire the Venus of Milo in the same sense as it is our duty to love our neighbour. If any do hold this view, the conclusion to be drawn is, not that their Æsthetic code stands on a different, but similar, platform to their Ethical code, but that their Ethical code is larger than that of ordinary people, by the whole amount of their Æsthetics.

According to the second of these possibilities, namely, that Æsthetics belongs to Psychology, Æsthetics is merely the investigation of the nature and causes of peculiar emotions—chiefly secondary—produced in us by certain external causes, objects, or representations, and has no more to do with Ethics, either by way of resemblance or contrast, than any other part of the science to which it belongs. The third possibility, namely, that Æsthetics

belongs to Metaphysics, includes all such theories of the Beautiful as deal exclusively with 'objective Standards,' 'ideas,' or 'archetypes,' 'the evolution of the Idea,' or 'the Perception of the agreement of the Subject and Object,' and the like. Taken by themselves, theories of this kind belong to Metaphysics; but if there be added any consideration of the relation such ontological entities or processes bear to the individual, these considerations must belong either to the first or the second of the above-mentioned possible treatments of Æsthetics, and must, therefore, be either ethical or psychological. This is the fourth possibility.

300. The important duties of the moralist, for he has important duties, arise from the confused state in which the greater part of mankind are with regard to their ethical first principles. The two questions each man has to ask himself are—What do I hold to be the ultimate ends of action? and—If there is more than one such end, how do I estimate them in case of conflict? These two questions, it will be observed, are questions of fact, not of law; and the duty of the moralist is to help his readers to discover the fact, not to force his own view down their throat by attempting a proof of that which is essentially, and by its very nature, incapable of proof. Above all, he must beware of substituting some rude simplification for (what may perhaps be) the complexity of nature, by deducing (as the Utilitarians do) all subordinate rules from one fundamental principle, when, it may be, this principle only approximately contains actual existing ethical facts.

Since these two questions can be answered, not by ratiocination, but only by simple inspection, the art of the moralist will consist in placing before the enquirer various problems in Ethics free from the misleading particulars which surround them in practice. In other words, his method will be casuistical, and not dogmatic.

301. There are only two senses in which we can rationally talk of a moral system being superior to the one we profess. According to the first sense, superior means superior in form, more nearly in accordance with the ideal of an ethical system just sketched out. According to the second sense, in which the superiority attaches to the *matter* of the system, it can only mean that the system is one of which we are ignorant, *but which we should adopt if presented to us*. The superiority indicated is a hypothetical superiority.

Now it must be observed that the sense in which we speak of other hypothetical systems as being superior to our own, is by no means identical with that in which we speak of our own as being superior to that of other people. Looking back over history, we perceive a change and development of the moral ideas of the race in the direction of the systems which now prevail; and this change we rightly term an improvement. But if, arguing from the past, we suppose that this improvement will continue through the indefinite future, we are misled by a false analogy. The change may very well continue, the improvement certainly will not. And the reason is clear. What we mean, or ought to mean, by an improvement in the past, is an approach to our own standard, and since any change at all corresponding in magnitude to this in the future must involve a departure from that standard, it must necessarily be a change for the worse.

In other words—when we speak of another system as being superior (in matter) to our own, we speak of a possible system which we should accept if we knew it. When we speak of our own system being superior to that of some other person, we assert the superiority unconditionally, and quite irrespectively of the possible acceptance of it by that other person, supposing him to be acquainted with it. If then we believe that development will proceed in the future as it has done in the past, we must suppose that a time will come when the moral ideas of the world would be as much out of our reach, supposing them presented to us, as ours would be out of reach of primitive man. This is also true of scientific ideas: but there is this difference between them, that whereas the change in scientific ideas may be an improvement, that in moral ideas must be a degradation. The grounds of this distinction of course are obvious, viz. that the standard of excellence in the case of scientific ideas is, or is supposed to be, conformity to an infinitely complex external world—a conformity which may *increase* with every change in the ideas. The standard of excellence, on the other hand, in moral ideas must necessarily be conformity to our actual ideal, and this conformity must *diminish* with every change in the ideas.

This point would not perhaps have been worth dwelling on, if it was not that the discussion brings into strong relief the nature, so far as form is concerned, of the criterion of right, and also has some bearing on current theories of optimistic evolution, with which I confess it does not seem possible easily to reconcile it.

302. The two subjects on which the professors of every creed, theological and anti-theological, seem least anxious to differ, are the general substance of the Moral Law, and the character of the sentiments with which it should be regarded. That it is worthy of all reverence ; that it demands our ungrudging submission ; and that we owe it not merely obedience, but love—these are common-places which the preachers of all schools vie with each other in proclaiming. And they are certainly right. Morality is more than a bare code of laws, than a *catalogue raisonné* of things to be done or left undone. Were it otherwise, we must change something more important than the mere customary language of exhortation. The old ideals of the world would have to be uprooted, and no new ones could spring up and flourish in their stead ; the very soil on which they grew would be sterilised, and the phrases in which all that has hitherto been regarded as best and noblest in human life has been expressed, nay, the words ‘best’ and ‘noblest’ themselves, would become as foolish and unmeaning as the incantation of a forgotten superstition.

303. Nothing but habit could blind us to the strangeness of the fact that the man who believes that morality is based on *a priori* principles, and the man who believes it to be based on the commands of God, the transcendentalist, the theologian, the mystic, and the evolutionist, should be pretty well at one both as to what morality teaches, and as to the sentiments with which its teaching should be regarded.

It is not my business in this place to examine the Philosophy of Morals, or to find an answer to the charge which this suspicious harmony of opinion among various schools of moralists appears to suggest, namely, that in their speculations they have taken current morality for granted, and have squared their proofs to their conclusions, and not their conclusions to their proofs.

304. Practically, human beings being what they are, no moral code can be effective which does not inspire, in those who are asked to obey it, emotions of reverence ; and, practically, the capacity of any code to excite this or any other elevated emotion cannot be wholly independent of the origin from which those who accept that code suppose it to emanate.

305. My point is, that in the case of those holding the naturalistic creed the sentiments and the creed are antagonistic ; and that the more clearly the creed is grasped, the more thoroughly the intellect is saturated with its essential teaching, the more certain are the sentiments thus violently and unnaturally associated with it, to languish or to die.

306. Kant, as we all know, compared the Moral Law to the starry heavens, and found them both sublime. It would, on the naturalistic hypothesis, be more appropriate to compare it to the protective blotches on the beetle's back, and to find them both ingenious. But how on this view is the 'beauty of holiness' to retain its lustre in the minds of those who know so much of its pedigree? In despite of theories, mankind—even instructed mankind—may, indeed, long preserve uninjured sentiments which they have learned in their most impressionable years from those they love best ; but if, while they are being taught the supremacy of conscience and the austere majesty of duty, they are also to be taught that these sentiments and beliefs are merely samples of the complicated contrivances, many of them mean and many of them disgusting, wrought into the physical or into the social organism by the shaping forces of selection and elimination, assuredly much of the efficacy of these moral lessons will be destroyed, and the contradiction between ethical sentiment and naturalistic theory will remain intrusive and perplexing, a constant stumbling-block to those who endeavour to combine in one harmonious creed the bare explanations of Biology and the lofty claims of Ethics.

307. The fact no doubt remains (at least so it seems to me : there are, however, eminent psychologists who differ) that every individual, while balancing between two courses, is under the inevitable impression that he is at liberty to pursue either, and that it depends upon 'himself' and himself alone, 'himself' as distinguished from his character, his desires, his surroundings, and his antecedents, which of the offered alternatives he will elect to pursue. I do not know that any explanation has been proposed of what, on the naturalistic hypothesis, we must regard as a singular illusion. I venture with some diffidence to suggest, as a theory provisionally adequate, perhaps, for scientific purposes, that the phenomenon is due to the same cause as so many other beneficent oddities in the

organic world, namely, to natural selection. To an animal with no self-consciousness a sense of freedom would evidently be unnecessary, if not, indeed, absolutely unmeaning. But as soon as self-consciousness is developed, as soon as man begins to reflect, however crudely and imperfectly, upon himself and the world in which he lives, then deliberation, volition, and the sense of responsibility become wheels in the ordinary machinery by which species-preserving actions are produced ; and as these psychological states would be weakened or neutralised if they were accompanied by the immediate consciousness that they were as rigidly determined by their antecedents as any other effects by any other causes, benevolent Nature steps in, and by a process of selective slaughter makes the consciousness in such circumstances practically impossible. The spectacle of all mankind suffering under the delusion that in their decision they are free, when, as a matter of fact, they are nothing of the kind, must certainly appear extremely ludicrous to any superior observer, were it possible to conceive, on the naturalistic hypothesis, that such observers should exist ; and the comedy could not be otherwise than greatly relieved and heightened by the performances of the small sect of philosophers who, knowing perfectly as an abstract truth that freedom is an absurdity, yet in moments of balance and deliberation invariably conceive themselves to possess it, just as if they were savages or idealists.

308. I admit that there is nothing in the theory of determinism which need modify the substance of the moral law. That which duty prescribes, or the 'Practical Reason' recommends, is equally prescribed and recommended whether our actual decisions are or are not irrevocably bound by a causal chain which reaches back in unbroken retrogression through a limitless past. It may also be admitted that no argument against good resolutions or virtuous endeavours can fairly be founded upon necessitarian doctrines. No doubt he who makes either good resolutions or virtuous endeavours does so (on the determinist theory) because he could not do otherwise ; but none the less may these play an important part among the antecedents by which moral actions are ultimately produced. An even stronger admission may, I think, be properly made. There is a fatalistic temper of mind found in some of the greatest men of action, religious and irreligious, in which the sense that all that happens is fore-ordained

does in no way weaken the energy of volition, but only adds a finer temper to the courage. It nevertheless remains the fact that the persistent realisation of the doctrine that voluntary decisions are as completely determined by external and (if you go far enough back) by material conditions as involuntary ones, does really conflict with the sense of personal responsibility, and that with the sense of personal responsibility is bound up the moral will. Nor is this all. It may be a small matter that determinism should render it thoroughly irrational to feel righteous indignation at the misconduct of other people. It cannot be wholly without importance that it should render it equally irrational to feel righteous indignation at our own. Self-condemnation, repentance, remorse, and the whole train of cognate emotions, are really so useful for the promotion of virtue, that it is a pity to find them at a stroke thus deprived of all reasonable foundation, and reduced, if they are to survive at all, to the position of amiable but unintelligent weaknesses. It is clear, moreover, that these emotions, if they are to fall, will not fall alone. What is to become of moral admiration? The virtuous man will, indeed, continue to deserve and to receive admiration of a certain kind—the admiration, namely, which we justly accord to a well-made machine; but this is a very different sentiment from that at present evoked by the heroic or the saintly; and it is, therefore, much to be feared, that, at least in the region of the higher feelings, the world will be no great gainer by the effective spread of sound naturalistic doctrine.

309. If a complete accord between practice and speculation were required of us, philosophers would long ago have been eliminated. Nevertheless, the persistent conflict between that which is thought to be true, and that which is felt to be noble and of good report, not only produces a sense of moral unrest in the individual, but makes it impossible for us to avoid the conclusion that the creed which leads to such results is, somehow, unsuited for 'such beings as we are in such a world as ours'.

310. Those who hold, as I do, that 'reasonable self-love' has a legitimate position among ethical ends; that as a matter of fact it is a virtue wholly incompatible with what is commonly called selfishness; and that society suffers not from having too

much of it, but from having too little, will probably take the view that, until the world undergoes a very remarkable transformation, a complete harmony between 'egoism' and 'altruism,' between the pursuit of the highest happiness for one's self and the highest happiness for other people, can never be provided by a creed which refuses to admit that the deeds done and the character formed in this life can flow over into another, and there permit a reconciliation and an adjustment between the conflicting principles which are not always possible here. To those, again, who hold (as I think, erroneously) both that the 'greatest happiness of the greatest number' is the right end of action, and also that, as a matter of fact, every agent invariably pursues his own, a heaven and a hell, which should make it certain that principle and interest were always in agreement, would seem almost a necessity. Not otherwise, neither by education, public opinion, nor positive law, can there be any assured harmony produced between that which man must do by the constitution of his will, and that which he ought to do according to the promptings of his conscience. On the other hand, it must be acknowledged that those moralists who are of opinion that 'altruistic' ends alone are worthy of being described as moral, and that man is not incapable of pursuing them without any self-regarding motives, require no future life to eke out their practical system. But even they would probably not be unwilling to admit, with the rest of the world, that there is something jarring to the moral sense in a comparison between the distribution of happiness and the distribution of virtue, and that no better mitigation of the difficulty has yet been suggested than that which is provided by a system of 'rewards and punishments,' impossible in any universe constructed on strictly naturalistic principles.

311. It is no reply to say that the substance of the Moral Law need suffer no change through any modification of our views of man's place in the universe. This may be true, but it is irrelevant. We desire, and desire most passionately when we are most ourselves, to give our service to that which is Universal, and to that which is Abiding. Of what moment is it, then (from this point of view), to be assured of the fixity of the Moral Law when it and the sentient world, where alone it has any significance, are alike destined to vanish utterly away within periods trifling beside those with which the geologist and the astronomer lightly deal in the

course of their habitual speculations? No doubt to us ordinary men in our ordinary moments considerations like these may seem far off and of little meaning. In the hurry and bustle of everyday life, death itself—the death of the individual—seems shadowy and unreal; how much more shadowy, how much less real, that remoter but not less certain death which must some day overtake the race! Yet, after all, it is in moments of reflection that the worth of creeds may best be tested; it is through moments of reflection that they come into living and effectual contact with our active life. It cannot, therefore, be a matter to us of small moment that, as we learn to survey the material world with a wider vision, as we more clearly measure the true proportions which man and his performances bear to the ordered Whole, our practical ideal gets relatively dwarfed and beggared, till we may well feel inclined to ask whether so transitory and so unimportant an accident in the general scheme of things as the fortunes of the human race can any longer satisfy aspirations and emotions nourished upon beliefs in the Everlasting and the Divine.

312. Naturalism (as commonly held) is deeply committed to the distinction between the *primary* and the *secondary* qualities of matter; the former (extension, solidity, and so forth) being supposed to exist as they are perceived, while the latter (such as sound and colour) are due to the action of the primary qualities upon the sentient organism, and apart from the sentient organism have no independent being. Every scene in Nature, therefore, and every work of art, whose beauty consists either directly or indirectly, either presentatively or representatively, in colour or in sound, has, and can have, no more permanent existence than is possessed by that relation between the senses and our material environment which gave them birth, and in the absence of which they perish. If we could perceive the succession of events which constitute a sunset exactly as they occur, as they are (physically, not metaphysically speaking) *in themselves*, they would, so far as we can guess, have no æsthetic merit, or even meaning. If we could perform the same operation on a symphony, it would end in a like result. The first would be no more than a special agitation of the ether; the second would be no more than a special agitation of the air. However much they might excite the curiosity of the physicist or the mathematician, for the artist they could no longer possess either interest or significance.

313. In truth this tendency in matters æsthetic is only a particular case of a general tendency to agreement which plays an even more important part in other departments of human activity. Its operation, beneficent doubtless on the whole, may be traced through all social and political life. We owe to it in part that deep-lying likeness in tastes, in opinions, and in habits, without which cohesion among the individual units of a community would be impossible, and which constitutes the unmoved platform on which we fight out our political battles. It is no contemptible factor among the forces by which nations are created and religions disseminated and maintained. It is the very breath of life to sects and coteries. Sometimes, no doubt, its results are ludicrous. Sometimes they are unfortunate. Sometimes merely insignificant. Under which of these heads we should class our ever-changing uniformity in dress I will not take upon me to determine. It is sufficient for my present purpose to point out that the æsthetic likings which fashion originates, however trivial, are perfectly genuine; and that to an origin similar in kind, however different in dignity and permanence, should be traced much of the characteristic quality which gives its special flavour to the higher artistic sentiments of each successive generation.

314. The persistent and almost pathetic endeavours of æsthetic theory to show that the beautiful is a necessary and unchanging element in the general scheme of things, if they prove nothing else, may at least convince us that mankind will not easily reconcile themselves to the view which the naturalistic theory of the world would seemingly compel them to accept. We feel no difficulty, perhaps, in admitting the full consequences of that theory at the lower end of the æsthetic scale, in the region, for instance, of bonnets and wall-papers. We may tolerate it even when it deals with important elements in the highest art, such as the sense of technical excellence, or sympathy with the craftsman's skill. But when we look back on those too rare moments when feelings stirred in us by some beautiful object not only seem wholly to absorb us, but to raise us to the vision of things far above the ken of bodily sense or discursive reason, we cannot acquiesce in any attempt at explanation which confines itself to the bare enumeration of psychological and physiological causes and effects. We cannot willingly assent to a theory which makes a good composer only differ from a good cook in that he deals in more complicated relations, moves in a wider

circle of associations, and arouses our feelings through a different sense. However little, therefore, we may be prepared to accept any particular scheme of metaphysical æsthetics—and most of these appear to me to be very absurd—we must believe that somewhere and for some Being there shines an unchanging splendour of beauty of which in Nature and in Art we see, each of us from our own standpoint, only passing gleams and stray reflections, whose different aspects we cannot now co-ordinate, whose import we cannot fully comprehend, but which at least is something other than the chance play of subjective sensibility or the far-off echo of ancestral lusts. No such mystical creed can, however, be squeezed out of observation and experiment; Science cannot give it us; nor can it be forced into any sort of consistency with the Naturalistic Theory of the Universe.

315. The inadequacy of our intellect to resolve the questions which it is capable of asking is acknowledged (at least in words) both by students of science and by students of theology. But they do not seem so much impressed with the inadequacy of our senses. Yet if the current doctrine of evolution be true, we have no choice but to admit that with the great mass of natural fact we are probably brought into no sensible relation at all. I am not referring here merely to the limitations imposed upon such senses as we possess, but to the total absence of an indefinite number of senses which conceivably we might possess, but do not. There are sounds which the ear cannot hear, there are sights which the eye cannot see. But besides all these there must be countless aspects of external Nature of which we have no knowledge; of which, owing to the absence of appropriate organs, we can form no conception; which imagination cannot picture nor language express. Had Voltaire been acquainted with the theory of evolution, he would not have put forward his *Micromégas* so much as an illustration of a paradox which cannot be disproved, as of a truth which cannot be doubted. For to suppose that a course of development carried out not with the object of extending knowledge or satisfying curiosity, but solely with that of promoting life, on an area so insignificant as the surface of the earth, between limits of temperature and pressure so narrow, and under general conditions so exceptional, should have ended in supplying us with senses even approximately adequate to the apprehension of Nature in all her complexities, is to believe in

a coincidence more astounding than the most audacious novelist has ever employed to cut the knot of some entangled tale.

For it must be recollected that the same natural forces which tend to the evolution of organs which are useful tend also to the suppression of organs that are useless. Not only does Nature take no interest in our general education, not only is she quite indifferent to the growth of enlightenment, unless the enlightenment improve our chances in the struggle for existence, but she positively objects to the very existence of faculties by which these ends might, perhaps, be attained. She regards them as mere hindrances in the only race which she desires to see run; and not content with refusing directly to create any faculty except for a practical purpose, she immediately proceeds to destroy faculties already created when their practical purpose has ceased; for thus does the eye of the cave-born fish degenerate and the instinct of the domesticated animal decay.

316. It is impossible, therefore, to resist the conviction that there must be an indefinite number of aspects of Nature respecting which science never can give us any information, even in our dreams. We must conceive ourselves as feeling our way about this dim corner of the illimitable world, like children in a darkened room encompassed by we know not what; a little better endowed with the machinery of sensation than the protozoon, yet poorly provided indeed as compared with a being, if such a one could be conceived, whose senses were adequate to the infinite variety of material Nature. It is true, no doubt, that we are possessed of reason, and that protozoa are not. But even reason, on the naturalistic theory, occupies no elevated or permanent position in the hierarchy of phenomena. It is not the final result of a great process, the roof and crown of things. On the contrary, it is, as I have said, no more than one of many experiments for increasing our chance of survival, and, among these, by no means the most important or the most enduring.

317. People sometimes talk, indeed, as if it was the difficult and complex work connected with the maintenance of life that was performed by intellect. But there can be no greater delusion. The management of the humblest organ would be infinitely beyond our

mental capacity, were it possible for us to be entrusted with it ; and as a matter of fact, it is only in the simplest jobs that discursive reason is permitted to have a hand at all ; our tendency to take a different view being merely the self-importance of a child who, because it is allowed to stamp the letters, imagines that it conducts the correspondence.

318. If the conscious adaptation of means to ends was always necessary in order to perform even those few functions for the first performance of which conscious adaptation was originally required, life would be frittered away in doing badly, but with deliberation, some small fraction of that which we now do well without any deliberation at all. The formation of habits is, therefore, as has often been pointed out, a necessary preliminary to the 'higher' uses of mind ; for it, and it alone, sets attention and intelligence free to do work from which they would otherwise be debarred by their absorption in the petty needs of daily existence.

319. I know not how it may strike the reader ; but I at least am left sensibly poorer by this deposition of Reason from its ancient position as the Ground of all existence, to that of an expedient among other expedients for the maintenance of organic life ; an expedient, moreover, which is temporary in its character and insignificant in its effects. An irrational Universe which accidentally turns out a few reasoning animals at one corner of it, as a rich man may experiment at one end of his park with some curious 'sport' accidentally produced among his flocks and herds, is a Universe which we might well despise if we did not ourselves share its degradation. But must we not inevitably share it ? Pascal somewhere observes that Man, however feeble, is yet in his very feebleness superior to the blind forces of Nature ; for he knows himself, and they do not. I confess that on the naturalistic hypothesis I see no such superiority. If, indeed, there were a Rational Author of Nature, and if in any degree, even the most insignificant, we shared His attributes, we might well conceive ourselves as of finer essence and more intrinsic worth than the material world which we inhabit, immeasurable though it may be. But if we be the creation of that world ; if it made us what we are, and will again unmake us ; how then ? The sense of humour, not the

least precious among the gifts with which the clash of atoms has endowed us, should surely prevent us assuming any airs of superiority over members of the same family of 'phenomena,' more permanent and more powerful than ourselves.

320. If naturalism be true, or, rather, if it be the whole truth, then is morality but a bare catalogue of utilitarian precepts; beauty but the chance occasion of a passing pleasure; reason but the dim passage from one set of unthinking habits to another. All that gives dignity to life, all that gives value to effort, shrinks and fades under the pitiless glare of a creed like this; and even curiosity, the hardest among the nobler passions of the soul, must languish under the conviction that neither for this generation nor for any that shall come after it, neither in this life nor in another, will the tie be wholly loosened by which reason, not less than appetite, is held in hereditary bondage to the service of our material needs.

321. Poets and artists have been wont to consider themselves, and to be considered by others, as prophets and seers, the revealers under sensuous forms of hidden mysteries, the symbolic preachers of eternal truths. All this is, of course, on the naturalistic theory, very absurd. They minister, no doubt, with success to some phase, usually a very transitory phase, of public taste; but they have no mysteries to reveal, and what they tell us, though it may be very agreeable, is seldom true, and never important. This is a conclusion which, howsoever it may accord with sound philosophy, is not likely to prove very stimulating to the artist, nor does it react with less unfortunate effect upon those to whom the artist appeals. Even if their feeling of delight in the beautiful is not marred for them in immediate experience, it must suffer in memory and reflection. For such a feeling carries with it, at its best, an inevitable reference, not less inevitable because it is obscure, to a Reality which is eternal and unchanging; and we cannot accept without suffering the conviction that in making such a reference we were merely the dupes of our emotions, the victims of a temporary hallucination induced, as it were, by some spiritual drug.

322. Our capacity for standing outside ourselves and taking

stock of the position which we occupy in the universe of things has been enormously, and, it would seem, unfortunately, increased by recent scientific discovery. We have learned too much. We are educated above that station in life in which it has pleased Nature to place us. We can no longer accept it without criticism and without examination. We insist on interrogating that material system which, according to naturalism, is the true author of our being, as to whence we come and whither we go, what are the causes which have made us what we are, and what are the purposes which our existence subserves. And it must be confessed that the answers given to this question by our oracle are extremely unsatisfactory. We have learned to measure space, and we perceive that our dwelling-place is but a mere point, wandering with its companions, apparently at random, through the wilderness of stars. We have learned to measure time, and we perceive that the life not merely of the individual or of the nation, but of the whole race, is brief, and apparently quite unimportant. We have learned to unravel causes, and we perceive that emotions and aspirations whose very being seems to hang on the existence of realities of which naturalism takes no account, are in their origin contemptible and in their suggestion mendacious.

To me it appears certain that this clashing between beliefs and feelings must ultimately prove fatal to one or the other. Make what allowance you please for the stupidity of mankind, take the fullest account of their really remarkable power of letting their speculative opinions follow one line of development and their practical ideals another, yet the time must come when reciprocal action will perforce bring opinions and ideals into some kind of agreement and congruity. If, then, naturalism is to hold the field, the feelings and opinions inconsistent with naturalism must be foredoomed to suffer change; and how, when that change shall come about, it can do otherwise than eat all nobility out of our conception of conduct and all worth out of our conception of life, I am wholly unable to understand.

323. I am not aware that anyone has as yet endeavoured to construct the catechism of the future, purged of every element drawn from any other source than the naturalistic creed. It is greatly to be desired that this task should be undertaken in an impartial spirit; and as a small contribution to such an object, I

offer the following pairs of contrasted propositions, the first member of each pair representing current teaching, the second representing the teaching which ought to be substituted for it if the naturalistic theory be accepted.

A. The universe is the creation of Reason, and all things work together towards a reasonable end.

B. *So far as we can tell, reason is to be found neither in the beginning of things nor in their end ; and though everything is predetermined, nothing is fore-ordained.*

A. Creative reason is interfused with infinite love.

B. *As reason is absent, so also is love. The universal flux is ordered by blind causation alone.*

A. There is a moral law, immutable, eternal ; in its governance all spirits find their true freedom and their most perfect realisation. Though it be adequate to infinite goodness and infinite intelligence, it may be understood, even by man, sufficiently for his guidance.

B. *Among the causes by which the course of organic and social development has been blindly determined are pains, pleasures, instincts, appetites, disgusts, religions, moralities, superstitions ; the sentiment of what is noble and intrinsically worthy ; the sentiment of what is ignoble and intrinsically worthless. From a purely scientific point of view these all stand on an equality ; all are action-producing causes developed, not to improve, but simply to perpetuate, the species.*

A. In the possession of reason and in the enjoyment of beauty, we in some remote way share the nature of that infinite Personality in Whom we live and move and have our being.

B. *Reason is but the psychological expression of certain physiological processes in the cerebral hemispheres ; it is no more than an expedient among many expedients by which the individual and the race are preserved ; just as Beauty is no more than the name for such varying and accidental attributes of the material or moral worlds as may happen for the moment to stir our æsthetic feelings.*

A. Every human soul is of infinite value, eternal, free ; no human being, therefore, is so placed as not to have within his reach, in himself and others, objects adequate to infinite endeavour.

B. *The individual perishes ; the race itself does not endure. Few can flatter themselves that their conduct has any appreciable effect upon its remoter destinies ; and of those few, none can say with reasonable assurance that the effect which they are destined to produce is the one which they desire. Even if we were free, therefore, our ignorance would make us helpless ; and it may be almost a consolation to reflect*

that our conduct was determined for us by unthinking forces in a remote past, and that if we are impotent to foresee its consequences, we were not less impotent to arrange its causes.

The doctrines embodied in the second member of each of these alternatives may be true, or may at least represent the nearest approach to truth of which we are at present capable. Into this question I do not yet inquire. But if they are to constitute the dogmatic scaffolding by which our educational system is to be supported ; if it is to be in harmony with principles like these that the child is to be taught at its mother's knee, and the young man is to build up the ideals of his life, then, unless I greatly mistake, it will be found that the inner discord which exists, and which must gradually declare itself, between the emotions proper to naturalism and those which have actually grown up under the shadow of traditional convictions, will at no distant date most unpleasantly translate itself into practice.

324. Kant's doctrines, even as modified by his successors, do not, so it seems to me, provide a sound basis for an 'epistemology of Nature'. But if in this connection we owe little to the metaphysical philosophers, we owe still less to those in whom we had a better right to trust, namely, the empirical ones. If the former have to some extent neglected the theory of science for theories of the Absolute, the latter have always shown an inclination to sacrifice the theory of knowledge itself to theories as to the genesis or growth of knowledge. They have contented themselves with investigating the primitive elements from which have been developed in the race and in the individual the completed consciousness of ourselves and of the world in which we live. They have, therefore, dealt with the origins of what we believe rather than with its justification. They have substituted psychology for philosophy ; they have presented us, in short, with studies in a particular branch or department of science, rather than with an examination into the grounds of science in general. And when perforce they are brought face to face with some of the problems connected with the philosophy of science which most loudly clamour for solution, there is something half-pathetic and half-humorous in their methods of cutting a knot which they are quite unable to untie. Can anything, for example, be more naive than the undisturbed serenity with which Locke, towards the end of his great work, assures his readers that

he 'suspects that natural philosophy is not capable of being made a science'; or, as I should prefer to state it, that natural science is not capable of being made a philosophy? Or can anything be more characteristic than the moral which he draws from this rather surprising admission, namely, that as we are so little fitted to frame theories about this present world, we had better devote our energies to preparing for the next? This remarkable display of philosophic resignation in the father of modern empiricism has been imitated, with differences, by a long line of distinguished successors. Hume, for example, though naturally enough he declined to draw Locke's edifying conclusion, did more than any one else to establish Locke's despairing premise; and his inferences from it are at least equally singular. Having reduced our belief in the fundamental principles of scientific interpretation to expectations born of habit; having reduced the world which is to be interpreted to an unrelated series of impressions and ideas; having by this double process made experience impossible and turned science into foolishness, he quietly informs us, as the issue of the whole matter, that outside experience and science knowledge is impossible, and that all except 'mathematical demonstration' and 'experimental reasoning' on 'matters of fact' is sophistry and illusion!

I think too well of Hume's speculative genius and too ill of his speculative sincerity to doubt that in making this statement he spoke, not as a philosopher, but as a man of the world, making formal obeisance to the powers that be. But what he said half-ironically, his followers have said with an unshaken seriousness. Nothing in the history of speculation is more astonishing, nothing—if I am to speak my whole mind—is more absurd than the way in which Hume's philosophic progeny—a most distinguished race—have, in spite of all their differences, yet been able to agree, *both* that experience is essentially as Hume described it, *and* that from such an experience can be rationally extracted anything even in the remotest degree resembling the existing system of the natural sciences. Like Locke, these gentlemen, or some of them, have, indeed, been assailed by momentary misgivings. It seems occasionally to have occurred to them that if their theory of knowledge were adequate, 'experimental reasoning,' as Hume called it, was in a very parlous state; and that, on the merits, nothing less deserved to be held with a positive conviction than what some of them are wont to describe as 'positive' knowledge. But they have soon thrust away such unwelcome thoughts. The self-satisfied dogmat-

ism which is so convenient, and, indeed, so necessary a habit in the daily routine of life, has resumed its sway. They have forgotten that they were philosophers, and with true practical instincts have reserved their 'obstinate questionings' exclusively for the benefit of opinions from which they were already predisposed to differ.

325. In its perfected shape it is evident that the philosophic series, though it reaches out to the farthest confines of the known, must for each man trace its origin to something which *he* can regard as axiomatic and self-evident truth. There is no theoretical escape for any of us from the ultimate 'I'. What 'I' believe as conclusive must be drawn, by some process which 'I' accept as cogent, from something which 'I' am obliged to regard as intrinsically self-sufficient, beyond the reach of criticism or the need for proof. The philosophic order and the scientific order of statement, therefore, cannot fail to be wholly different. While the scientific order may start with the dogmatic enunciation of some great generalisation valid through the whole unmeasured range of the material universe, the philosophic order is perforce compelled to find its point of departure in the humble personality of the enquirer. *His* grounds of belief, not the things believed in, are the subject-matter of investigation. *His* reason, or, if you like to have it so, his share of the Universal Reason, but in any case something which is *his*, must sit in judgment, and must try the cause. The rights of this tribunal are inalienable, its authority incapable of delegation; nor is there any superior court by which the verdict it pronounces can be reversed.

326. If now the question were asked, 'On what sort of premises rests ultimately the scientific theory of the world?' science and empirical philosophy, though they might not agree on the meaning of terms, would agree in answering, 'On premises supplied by experience'. It is experience which has given us our first real knowledge of Nature and her laws. It is experience, in the shape of observation and experiment, which has given us the raw material out of which hypothesis and inference have slowly elaborated that richer conception of the material world which constitutes perhaps the chief, and certainly the most characteristic, glory of the modern mind.

327. Whereas common-sense tells us that our experience of objects provides us with a knowledge of their nature which, so far as it goes, is immediate and direct, science informs us that each particular experience is itself but the final link in a long chain of causes and effects, whose beginning is lost amid the complexities of the material world, and whose ending is a change of some sort in the 'mind' of the percipient. It informs us, further, that among these innumerable causes, the thing 'immediately experienced' is but one; and is, moreover, one separated from the 'immediate experience' which it modestly assists in producing by a very large number of intermediate causes which are never experienced at all.

328. I am not here arguing that the theory of experience now under consideration, the theory, that is, which confines the field of immediate experience to our own states of mind, is inconsistent with science, or even that it supplies an inadequate empirical basis for science. On these points I may have a word to say presently. My present contention simply is, that it is not experience *thus understood* which has supplied men of science with their knowledge of the physical universe. They have never suspected that, while they supposed themselves to be perceiving independent material objects, they were in reality perceiving quite another set of things, namely, feelings and sensations of a particular kind, grouped in particular ways, and succeeding each other in a particular order. Nor, if this idea had ever occurred to them, would they have admitted that these two classes of things could by any merely verbal manipulation be made the same.

329. Yet an even stronger statement would seem to be justified. We must not only say that the experiences on which science is founded have been invariably misinterpreted by those who underwent them, but that, if they had not been so misinterpreted, science as we know it would never have existed. We have not merely stumbled on the truth in spite of error and illusion, which is odd, but because of error and illusion, which is odder. For if the scientific observers of Nature had realised from the beginning that all they were observing was their own feelings and ideas, as empirical idealism and mental physiology alike require us to hold, they surely would never have taken the trouble to invent a Nature (i.e. an in-

dependently existing system of material things) for no other purpose than to provide a machinery by which the occurrence of feelings and ideas might be adequately accounted for. To go through so much to get so little, to bewilder themselves in the ever-increasing intricacies of this hypothetical wheel-work, to pile world on world and add infinity to infinity, and all for no more important object than to find an explanation for a few fleeting impressions, say of colour or resistance, would, indeed, have seemed to them a most superfluous labour. Nor is it possible to doubt that this task has been undertaken and partially accomplished only because humanity has been, as for the most part it still is, under the belief not merely that there exists a universe possessing the independence which science and common-sense alike postulate, but that it is a universe immediately, if imperfectly, revealed to us in the deliverances of sense-perception.

330. There remains but one problem further with which I need trouble the readers of this chapter. It is that raised by the proposition which asserts that the principle of causation, and, by parity of reasoning, any other universal principle of sense-interpretation, may by some process of logical alchemy be extracted, not merely from experience in general, but even from the experience of a single individual.

But who, it may be asked, is unreasonable enough to demand that it should be extracted from the experience of a single individual? What is there in the empirical theory which requires us to impose so arbitrary a limitation upon the sources of our knowledge? Have we not behind us the whole experience of the race? Is it to count for nothing that for numberless generations mankind has been scrutinising the face of Nature, and storing up for our guidance innumerable observations of the laws which she obeys? Yes, I reply, it *is* to count for nothing; and for a most simple reason. In making this appeal to the testimony of mankind with regard to the world in which they live, we take for granted that there is such a world, that mankind has had experiences of it, and that, so far as is necessary for our purpose, we know what those experiences have been. But by what right do we take those things for granted? They are not axiomatic or intuitive truths; they must be proved by something; and that something must, on the empirical theory, be in the last resort experience, and experience alone. But whose experience? Plainly it cannot be *general* experi-

ence, for that is the very thing whose reality has to be established, and whose character is in question. It must, therefore, in every case and for each individual man be his own personal experience. This, and only this, can supply him with evidence for those fundamental beliefs, without whose guidance it is impossible for him either to reconstruct the past or to anticipate the future.

Consider, for example, the law of causation ; one, but by no means the only one, of those general principles of interpretation which, as I am contending, are presupposed in any appeal to general experience, and cannot, therefore, be proved by it. If we endeavour to analyse the reasoning by which we arrive at the conviction that any particular event or any number of particular events have occurred outside the narrow ring of our own immediate perceptions, we shall find that not a step of this process can we take without assuming that the course of Nature is uniform ; or, if not absolutely uniform, at least sufficiently uniform to allow us to argue with tolerable security from effects to causes, or, if need be, from causes to effects, over great intervals of time and space. The whole of what is called historical evidence is, in its most essential parts, nothing more than an argument or series of arguments of this kind. The fact that mankind have given their testimony to the general uniformity of Nature, or, indeed, to anything else, can be established by the aid of that principle itself, and by it alone ; so that if we abandon it, we are in a moment deprived of all logical access to the outer world, of all cognisance of other minds, of all usufruct of their accumulated knowledge, of all share in the intellectual heritage of the race. While if we cling to it (as, to be sure, we must, whether we like it or not), we can do so only on condition that we forego every endeavour to prove it by the aid of general experience ; for such a procedure would be nothing less than to compel what is intended to be the conclusion of our argument to figure also among the most important of its premises.

331. When we come to the more complex phenomena with which we have to deal, the plain lesson taught by personal observation is not the regularity, but the irregularity, of Nature. A kind of ineffectual attempt at uniformity, no doubt, is commonly apparent, as of an ill-constructed machine that will run smoothly for a time, and then for no apparent reason begin to jerk and quiver ;

or of a drunken man who, though he succeeds in keeping to the high-road, yet pursues along it a most wavering and devious course. But of that perfect adjustment, that all-penetrating governance by law, which lies at the root of scientific inference we find not a trace. In many cases sensation follows sensation, and event hurries after event to all appearances absolutely at random : no observed order of succession is ever repeated, nor is it pretended that there is any direct causal connection between the members of the series as they appear one after the other in the consciousness of the individual. But even when these conditions are reversed, perfect uniformity is never observed. The most careful series of experiments carried out by the most accomplished investigators never show identical results ; and as for the general mass of mankind, so far are they from finding, either in their personal experiences or elsewhere, any sufficient reason for accepting in its perfected form the principle of Universal Causation, that, as a matter of fact, this doctrine has been steadily ignored by them up to the present hour.

332. Doubtless if empiricism be shattered, it must drag down naturalism in its fall ; for, after all, naturalism is nothing more than the assertion that empirical methods are valid, and that no others are so. But because any effectual criticism of empiricism is the destruction of naturalism, is it therefore the destruction of science also? Surely not. The adherent of naturalism is an empiricist from necessity ; the man of science, if he be an empiricist, is so only from choice. The latter may, if he please, have no philosophy at all, or he may have a different one. He is not obliged, any more than other men, to justify his conclusions by an appeal to first principles ; still less is he obliged to take his first principles from so poor a creed as the one we have been discussing. Science preceded the theory of science, and is independent of it. Science preceded naturalism, and will survive it. Though the convictions involved in our practical conception of the universe are not beyond the reach of theoretic doubts, though we habitually stake our all upon assumptions which we never attempt to justify, and which we could not justify if we would, yet is our scientific certitude unshaken ; and if we still strive after some solution of our sceptical difficulties, it is because this is necessary for the satisfaction of an intellectual ideal, not because it is required to fortify our confidence either in the familiar teachings of experience or in their utmost scientific expansion.

333. Who would pay the slightest attention to naturalism if it did not force itself into the retinue of science, assume her livery, and claim, as a kind of poor relation, in some sort to represent her authority and to speak with her voice? Of itself it is nothing. It neither ministers to the needs of mankind, nor does it satisfy their reason. And if, in spite of this, its influence has increased, is increasing, and as yet shows no signs of diminution; if more and more the educated and the half-educated are acquiescing in its pretensions, and, however reluctantly, submitting to its domination, this is, at least in part, because they have not learned to distinguish between the practical and inevitable claims which experience has on their allegiance, and the speculative but quite illusory title by which the empirical school have endeavoured to associate naturalism and science in a kind of joint supremacy over the thoughts and consciences of mankind.

334. Men value Plato for his imagination, for the genius with which he hazarded solutions of the secular problems which perplex mankind, for the finished art of his dialogue, for the exquisite beauty of his style. But even if it could be said—which it cannot—that he left a system, could it be described as a system which, as such, has any effectual vitality? It would be difficult, perhaps impossible, to sum up our debts to Aristotle. But assuredly they do not include a tenable theory of the universe. The Stoic scheme of life may still touch our imagination; but who takes any interest in its metaphysics? Who cares for the Soul of the world, the periodic conflagrations, and the recurring cycles of mundane events? The Neo-Platonists were mystics; and mysticism is, as I suppose, an undying element in human thought. But who is concerned about their hierarchy of beings connecting through infinite gradations the Absolute at one end of the scale with Matter at the other?

These, however, it may be said, were systems belonging to the ancient world; and mankind have not busied themselves with speculation for these two thousand years and more without making some advance. I agree; but in the matter of providing us with a philosophy—with a reasoned system of knowledge—has this advance been as yet substantial? If the ancients fail us, do we, indeed, fare much better with the moderns? Are the metaphysics of Descartes more living than his physics? Do his two substances or kinds of sub-

stance, or the single substance of Spinoza, or the innumerable substances of Leibnitz, satisfy the searcher after truth? From the modern English form of the empiricism which dominated the eighteenth century, and the idealism which disputes its supremacy in the nineteenth, I have already ventured to express a reasoned dissent. Are we, then, to look to such schemes as Schopenhauer's philosophy of Will, and Hartmann's philosophy of the Unconscious, to supply us with the philosophical metaphysics of which we are in need? They have admirers in this country, but hardly convinced adherents. Of those who are quite prepared to accept their pessimism, how many are there who take seriously its metaphysical foundation?

335. All ages, indeed, which have exhibited intellectual vigour have cultivated one or more characteristic systems of metaphysics; but rarely, as it seems to me, have these systems been in their turn important elements in determining the character of the periods in which they flourished. They have been effects rather than causes; indications of the mood in which, under the special stress of their time and circumstance, the most detached intellects have faced the eternal problems of humanity; proofs of the unresting desire of mankind to bring their beliefs into harmony with speculative reason. But the beliefs have almost always preceded the speculations; they have frequently survived them; and I cannot convince myself that among the just titles to our consideration sometimes put forward on behalf of metaphysic we may count her claim to rank as a powerful instrument of progress.

336. Philosophers have mined for truth in many directions, and the whole field of speculation seems cumbered with the dross and lumber of their abandoned workings. But though they have not found the ore they sought for, it does not therefore follow that their labours have been wholly vain. It is something to have realised what *not* to do. It is something to discover the causes of failure, even though we do not attain any positive knowledge of the conditions of success. It is an even more substantial gain to have done something towards disengaging the questions which require to be dealt with, and towards creating and perfecting the terminology without which they can scarcely be adequately stated, much less satisfactorily answered.

337. Because reasoning occupies so large a place in metaphysical treatises we are apt to forget that, as a rule, these are works of imagination at least as much as of reason. Metaphysicians are poets who deal with the abstract and the super-sensible instead of the concrete and the sensuous. To be sure they are poets with a difference. Their appropriate and characteristic gifts are not the vivid realisation of that which is given in experience; their genius does not prolong, as it were, and echo through the remotest regions of feeling the shock of some definite emotion; they create for us no new worlds of things and persons; nor can it be often said that the product of their labours is a thing of beauty. Their style, it must be owned, has not always been their strong point; and even when it is otherwise, mere graces of presentation are but unessential accidents of their work. Yet, in spite of all this, they can only be justly estimated by those who are prepared to apply to them a quasi-æsthetic standard; some other standard, at all events, than that supplied by purely argumentative comment. It may perhaps be shown that their metaphysical constructions are faulty, that their demonstrations do not convince, that their most permanent dialectical triumphs have fallen to them in the paths of criticism and negation. Yet even then the last word will not have been said. For claims to our admiration will still be found in their brilliant intuitions, in the subtlety of their occasional arguments, in their passion for the Universal and the Abiding, in their steadfast faith in the rationality of the world, in the devotion with which they are content to live and move in realms of abstract speculation too far removed from ordinary interests to excite the slightest genuine sympathy in the breasts even of the cultivated few. If, therefore, we are for a moment tempted, as surely may sometimes happen, to contemplate with respectful astonishment some of the arguments which the illustrious authors of the great historic systems have thought good enough to support their case, let it be remembered that for minds in which the critical intellect holds undisputed sway, the creation of any system whatever in the present state of our knowledge is, perhaps, impossible. Only those in whom powers of philosophical criticism are balanced, or more than balanced, by powers of metaphysical imagination can be fitted to undertake the task. Though even to them success may be impossible, at least the illusion of success is permitted; and but for them mankind would fall away in hopeless discouragement from its highest intellectual ideal, and speculation would be strangled at its birth.

338. If faith be provisionally defined as conviction apart from or in excess of proof, then it is upon faith that the maxims of daily life, not less than the loftiest creeds and the most far-reaching discoveries, must ultimately lean. The ground on which constant habit and inherited predispositions enable us to tread with a step so easy and so assured, is seen on examination to be not less hollow beneath our feet than the dim and unfamiliar regions which lie beyond. Certitude is found to be the child, not of Reason, but of Custom ; and if we are less perplexed about the beliefs on which we are hourly called upon to act than about those which do not touch so closely our obvious and immediate needs, it is not because the questions suggested by the former are easier to answer, but because as a matter of fact we are much less inclined to ask them.

339. Though the contented acquiescence in inconsistency is the abandonment of the philosophic quest, the determination to obtain consistency at all costs has been the prolific parent of many intellectual narrownesses and many frigid bigotries. It has shown itself in various shapes ; it has stifled and stunted the free movement of thought in different ages and diverse schools of speculation ; its unhappy effects may be traced in much theology which professes to be orthodox, in much criticism which delights to be heterodox. It is, moreover, the characteristic note of a not inconsiderable class of intelligences who conceive themselves to be specially reasonable because they are constantly employed in reasoning, and who can find no better method of advancing the cause of knowledge than to press to their extreme logical conclusions principles of which, perhaps, the best that can be said is that they contain, as it were in solution, some element of truth which no reagents at our command will as yet permit us to isolate.

340. Systems are, and must be, for the few. The majority of mankind are content with a mood or temper of thought, an impulse not fully reasoned out, a habit guiding them to the acceptance and assimilation of some opinions and the rejection of others, which acts almost as automatically as the processes of physical digestion. Behind these half-realised motives, and in closest association with them, may sometimes, no doubt, be found a 'theory of things' which is their logical and explicit expression.

But it is certainly not necessary, and perhaps not usual, that this theory should be clearly formulated by those who seem to obey it.

341. Now, what is Rationalism? Some may be disposed to reply that it is the free and unfettered application of human intelligence to the problems of life and of the world; the unprejudiced examination of every question in the dry light of emancipated reason. This may be a very good account of a particular intellectual ideal; an ideal which has been sought after at many periods of the world's history, although assuredly it has been attained in none. Usage, however, permits and even encourages us to employ the word in a much more restricted sense: as indicating a special form of that reaction against dogmatic theology which became prominent at the end of the seventeenth century; which dominated so much of the best thought in the eighteenth century, and which has reached its most complete expression in the Naturalism which occupied our attention through the first portion of these Notes.

342. The mind of man cannot, any more than the body, vary in one direction alone. The whole organism suffers, or gains, from the change, and every faculty and every limb must be somewhat modified in order successfully to meet the new demands thrown upon it by the altered balance of the remainder. So is it also in matters intellectual. It is hopeless to expect that new truths and new methods of investigation can be acquired without the old truths requiring to be in some respects reconsidered and restated, surveyed under a new aspect, measured, perhaps, by a different standard. Much had, therefore, to be modified, and something—let us admit it—had to be destroyed. The new system could hardly produce its best results until the refuse left by the old system had been removed; until the waste products were eliminated which, like those of a muscle too long exercised, poisoned and clogged the tissues in which they had once played the part of living and effective elements.

The world, then, required enlightenment, and the rationalists proceeded after their own fashion to enlighten it. Unfortunately, however, their whole procedure was tainted by an original vice of method which made it impossible to carry on the honourable, if

comparatively humble, work of clearness and purification without, at the same time, destroying much that ought properly to have been preserved. They were not content with protesting against practical abuses, with vindicating the freedom of science from theological bondage, with criticising the defects and explaining the limitations of the somewhat cumbrous and antiquated apparatus of prevalent theological controversy—apparatus, no doubt, much better contrived for dealing with the points on which theologians differ than for defending against a common enemy the points on which theologians are for the most part agreed. These things, no doubt, to the best of their power, they did; and to the doing of them no objection need be raised. The objection is to the principle on which the things were done. That principle appeared under many disguises and was called by many names. Sometimes describing itself as Common-sense, sometimes as Science, sometimes as Enlightenment, with infinite varieties of application and great diversity of doctrine, Rationalism consisted essentially in the application, consciously or unconsciously, of one great method to the decision of every controversy, to the moulding of every creed. Did a belief square with a view of the universe based exclusively upon the prevalent mode of interpreting sense-perception? If so, it might survive. Did it clash with such mode, or lie beyond it? It was superstitious; it was unscientific; it was ridiculous; it was incredible. Was it neither in harmony with nor antagonistic to such a view, but simply beside it? It might live on until it became atrophied from lack of use, a mere survival of a dead past.

These judgments were not, as a rule, supported by any very profound arguments. Rationalists as such are not philosophers. They are not pantheists nor speculative materialists. They ignore if they do not despise metaphysics, and in practice eschew the search for first principles. But they judge as men of the world, reluctant either to criticise too closely methods which succeed so admirably in everyday affairs, or to admit that any other methods can possibly be required by men of sense.

343. Theism, Deism, Design, Soul, Conscience, Morality, Immortality, Freedom, Beauty—these and cognate words associated with the memory of great controversies mark the points at which rationalists who are not also naturalists have sought to come to terms with the rationalising spirit, or to make a stand against its

onward movement. It has been in vain. At some places the fortunes of battle hung long in the balance; at others the issues may yet seem doubtful. Those who have given up God can still make a fight for conscience; those who have abandoned moral responsibility may still console themselves with artistic beauty. But, to my thinking, at least, the struggle can have but one termination. Habit and education may delay the inevitable conclusion; they cannot in the end avert it. For these ideas are no native growth of a rationalist epoch, strong in their harmony with contemporary moods of thought. They are the products of a different age, survivals from, as some think, a decaying system. And howsoever stubbornly they may resist the influences of an alien environment, if this undergoes no change, in the end they must surely perish.

Naturalism, then, the naturalism whose practical consequences have already occupied us so long, is nothing more than the result of rationalising methods applied with pitiless consistency to the whole circuit of belief. It is the completed product of rationalism, the final outcome of using the 'current methods of interpreting sense-perception,' as the universal instrument for determining the nature and fixing the limits of human knowledge. What wealth of spiritual possession this creed requires us to give up I have already explained. What, then, does it promise us in exchange? It promises us Consistency. Religion may perish at its touch, it may strip Virtue and Beauty of their most precious attributes; but in exchange it promises us Consistency. True, the promise is in any circumstances but imperfectly kept. This creed, which so arrogantly requires that everything is to be made consistent with it, is not as we have seen, consistent with itself. The humblest attempts to co-ordinate and to justify the assumptions on which it proceeds with such unquestioning confidence bring to light speculative perplexities and contradictions whose very existence seems unsuspected, whose solution is not even attempted. But even were it otherwise, we should still be bound to protest against the assumption that consistency is a necessity of the intellectual life, to be purchased, if need be, at famine prices. It is a valuable commodity, but it may be bought too dear. No doubt a principal function of Reason is to smooth away contradictions, to knock off corners, and to fit, as far as may be, each separate belief into its proper place within the framework of one harmonious creed. No doubt, also, it is impossible to regard any theory which lacks self-consistency as either satisfactory or final. But principles going far beyond admissions like these are

required to compel us to acquiesce in rationalising methods and naturalistic results, to the destruction of every form of belief with which they do not happen to agree. Before such terms of surrender are accepted, at least the victorious system must show, not merely that its various parts are consistent with each other, but that the whole is authenticated by Reason. Until this task is accomplished (and how far at present it is from being accomplished in the case of naturalism the reader knows) it would be an act of mere blundering Unreason to set up as the universal standard of belief a theory of things which itself stands in so great need of rational defence, or to make a reckless and unthinking application of the canon of consistency when our knowledge of first principles is so manifestly defective.

344. If 'our ordinary method of interpreting sense-perception,' which gives us Science, is able also to supply us with Theology, then at least, whether it be philosophically valid or not, the majority of mankind may very well rest content with it until philosophers come to some agreement about a better. If it does not satisfy the philosophic critic, it will probably satisfy every one else; and even the philosophic critic need not quarrel with its practical outcome.

The system by which these results are thought to be attained pursues the following method. It divides Theology into Natural and Revealed. Natural Theology expounds the theological beliefs which may be arrived at by a consideration of the general course of Nature as this is explained to us by Science. It dwells principally upon the numberless examples of adaptation in the organic world, which apparently display the most marvellous indications of ingenious contrivance, and the nicest adjustment of means to ends. From facts like these it is inferred that Nature has an intelligent and a powerful Creator. From the further fact that these adjustments and contrivances are in a large number of cases designed for the interests of beings capable of pleasure and pain, it is inferred that the Creator is not only intelligent and powerful, but also benevolent; and the inquiring mind is then supposed to be sufficiently prepared to consider without prejudice the evidence for there having been a special Revelation by which further truths may have been imparted, not otherwise accessible to our unassisted powers of speculation.

The evidences of Revealed Religion are not drawn, like those of

Natural Religion, from general laws and widely disseminated particulars ; but they profess none the less to be solely based upon facts which, according to the classification I have adhered to throughout these Notes, belong to the scientific order. According to this theory, the logical burden of the entire theological structure is thrown upon the evidence for certain events which took place long ago, and principally in a small district to the east of the Mediterranean, the occurrence of which it is sought to prove by the ordinary methods of historical investigation, and by these alone—unless, indeed, we are to regard as an important ally the aforementioned presumption supplied by Natural Theology. It is true, of course, that the immediate reason for accepting the beliefs of Revealed Religion is that the religion *is* revealed. But it is thought to be revealed because it was promulgated by teachers who were inspired ; the teachers are thought to have been inspired because they worked miracles ; and they are thought to have worked miracles because there is historical evidence of the fact, which it is supposed would be more than sufficient to produce conviction in any unbiassed mind.

Now it must be conceded that if this general train of reasoning be assumed to cover the whole ground of ‘Christian Evidences,’ then, whether it be conclusive or inconclusive, it does at least attain the desideratum of connecting Science on the one hand, Religion—‘Natural’ and ‘Revealed’—on the other, into one single scheme of interconnected propositions. But it attains it by making Theology in form a mere annex or appendix to Science ; a mere footnote to history ; a series of conclusions inferred from data which have been arrived at by precisely the same methods as those which enable us to pronounce upon the probability of any other events in the past history of man, or of the world in which he lives. We are no longer dealing with a creed whose real premises lie deep in the nature of things. It is no question of metaphysical speculation, moral intuition, or mystical ecstasy with which we are concerned. We are asked to believe the Universe to have been designed by a Deity for the same sort of reason that we believe Canterbury Cathedral to have been designed by an architect ; and to believe in the events narrated in the Gospels for the same sort of reason that we believe in the murder of Thomas à Becket.

Now I am not concerned to maintain that these arguments are bad ; on the contrary, my personal opinion is that, as far as they go, they are good. The argument, or perhaps I should say *an*

argument, from design, in some shape or other, will always have value ; while the argument from history must always form a part of the evidence for any historical religion. The first will, in my opinion, survive any presumptions based upon the doctrine of natural selection ; the second will survive the consequences of critical assaults. But more than this is desirable ; more than this is, indeed, necessary. For however good arguments of this sort are, or may be made, they are not equal by themselves to the task of upsetting so massive an obstacle as developed Naturalism. They have not, as it were, sufficient intrinsic energy to effect so great a change. They may not be ill directed, but they lack momentum. They may not be technically defective, but they are assuredly practically inadequate.

345. Supposing, however, you have induced your Naturalistic philosopher to accept, if only for the sake of argument, your version of Natural Religion, what will he say to your method of extracting the proofs of Revealed Religion from the Gospel history ? Explain to him that there is good historic evidence of the usual sort for believing that for one brief interval during the history of the Universe, and in one small corner of this planet, the continuous chain of universal causation has been broken ; that in an insignificant country inhabited by an unimportant branch of the Semitic peoples events are alleged to have taken place which, if they really occurred, at once turn into foolishness the whole theory in the light of which he has been accustomed to interpret human experience, and convey to us knowledge which no mere contemplation of the general order of Nature would enable us even dimly to anticipate. What would be his reply ? His reply would be, nay, is (for our imaginary interlocutor has unnumbered prototypes in the world about us), that questions like these can scarcely be settled by the mere accumulation of historic proofs. Granting all that was asked, and more, perhaps, than ought to be conceded ; granting that the evidence for these wonders was far stronger than any that could be produced in favour of the apocryphal miracles which crowd the annals of every people ; granting even that the evidence seemed far more than sufficient to establish any incident, however strange, which does not run counter to the recognised course of Nature ; what then ? We were face to face with a difficulty, no doubt ; but the interpretation of the past was necessarily

full of difficulties. Conflicts of testimony with antecedent probability, conflicts of different testimonies with each other, were the familiar perplexities of the historic enquirer. In thousands of cases no absolutely satisfactory solution could be arrived at. Possibly the Gospel histories were among these. Neither the theory of myths, nor the theory of contemporary fraud, nor the theory of late invention, nor any other which the ingenuity of critics could devise, might provide a perfectly clean-cut explanation of the phenomena. But at least it might be said with confidence that no explanation could be less satisfactory than one which required us, on the strength of three or four ancient documents—at the best written by eye-witnesses of little education and no scientific knowledge, at the worst spurious and of no authority—to remodel and revolutionise every principle which governs us with an unquestioned jurisdiction in our judgments on the Universe at large.

Thus, slightly modifying Hume, might the disciple of Naturalism reply. And as against the rationalising theologian, is not his answer conclusive? The former has borrowed the premises, the methods, and all the positive conclusions of Naturalism. He advances on the same strategic principles, and from the same base of operations. And though he professes by these means to have overrun a whole continent of alien conclusions with which Naturalism will have nothing to do, can he permanently retain his conquests? Is it not certain that the huge expanse of his theology, attached by so slender a tie to the main system of which it is intended to be a dependency, will sooner or later have to be abandoned; and that the weak and artificial connection which has been so ingeniously contrived will snap at the first strain to which it shall be subjected by the forces either of criticism or sentiment?

346. If Naturalism by itself be practically insufficient, if no conclusion based on its affirmations will enable us to escape from the cold grasp of its negations, and if, as I think, the contrasted system of Idealism has not as yet got us out of the difficulty, what remedy remains? One such remedy consists in simply setting up side by side with the creed of natural science another and supplementary set of beliefs, which may minister to needs and aspirations which science cannot meet, and may speak amid silences which science is powerless to break. The natural world and the spiritual world, the world which is immediately subject to causation and

the world which is immediately subject to God, are, on this view, each of them real, and each of them the object of real knowledge. But the laws of the natural world are revealed to us by the discoveries of science; while the laws of the spiritual world are revealed to us through the authority of spiritual intuitions, inspired witnesses, or divinely guided institutions. And the two regions of knowledge lie side by side, contiguous but not connected, like empires of different race and language, which own no common jurisdiction nor hold any intercourse with each other, except along a disputed and wavering frontier where no superior power exists to settle their quarrels or determine their respective limits.

To thousands of persons this patchwork scheme of belief, though it may be in a form less sharply defined, has, in substance, commended itself; and if and in so far as it really meets their needs I have nothing to say against it, and can hold out small hope of bettering it. It is much more satisfactory as regards its content than Naturalism; it is not much less philosophical as regards its method; and it has the practical merit of supplying a rough and ready expedient for avoiding the consequences which follow from a premature endeavour to force the general body of belief into the rigid limits of one too narrow system.

It has, however, obvious inconveniences. There are many persons, and they are increasing in number, who find it difficult or impossible to acquiesce in this unconsidered division of the "Whole" of knowledge into two or more unconnected fragments. Naturalism may be practically unsatisfactory. But at least the positive teaching of Naturalism has secured general assent; and it shocks their philosophic instinct for unity to be asked to patch and plaster this accepted creed with a number of heterogeneous propositions drawn from an entirely different source, and on behalf of which no such common agreement can be claimed.

What such persons ask for, and rightly, is a philosophy, a scheme of knowledge, which shall give rational unity to an adequate creed. But, as the reader knows, I have it not to give; nor does it even seem to me that we have any right to flatter ourselves that we are on the verge of discovering some all-reconciling theory by which each inevitable claim of our complex nature may be harmonised under the supremacy of Reason.

The Nineteenth Century.

[See also "PROGRESS".]

[The extracts under this heading are taken from the Lecture delivered in connection with the Cambridge University Local Lectures, August, 1900.]

347. When we isolate a century for particular consideration, what kind of period have we in our minds? The negative answer at all events seems plain. It is seldom, except by accident, precisely the same period for two aspects of what we loosely but conveniently call the same century. Nature does not exhibit her uniformity by any pedantic adherence to the decimal system; and if we insist on substituting rigid and arbitrary divisions of historical time for natural ones, half the significance of history will be lost for us.

348. It so happens, for example, that I dislike the seventeenth century and like the eighteenth. I do not pretend to justify my taste. Perhaps it is that there is a kind of unity and finish about the eighteenth century wanting to its predecessor. Perhaps I am prejudiced against the latter by my dislike of its religious wars, which were more than half-political, and its political wars, which were more than half-religious. In any case the matter is quite unimportant. What is more to our present purpose is to ask, whether the nineteenth century yet presents itself to any of us sufficiently as a whole to suggest any sentiment of the kind I have just illustrated. I confess that, for my own part, it does not. Of that part of it with which most of us are alone immediately acquainted—say the last third—I feel I can in this connection say nothing. We are too much of it to judge it. The two remaining thirds, on the other hand, seem to me so different that I cannot criticise them together: and, if I am to criticise them separately, I acknowledge at once that it is the first third, and not the second, that

engages my sympathies. There are those, I am aware, who think that the great Reform Bill was the beginning of wisdom. Very likely they are right. But this is not a question of right but a question of personal predilection, and from that point of view the middle third of the nineteenth century does not, I acknowledge, appeal to me. It is probably due to the natural ingratitude which we are apt to feel towards our immediate predecessors. But I justify it to myself by saying that it reminds me too much of Landseer's pictures and the revival of Gothic ; that I feel no sentiment of allegiance towards any of the intellectual dynasties which then held sway ; that neither the thin lucidity of Mill nor the windy prophesyings of Carlyle, neither Comte nor yet Newman, were ever able to arouse in me the enthusiasm of a disciple : that I turn with pleasure from the Corn Law squabbles to the great War, from Thackeray and Dickens to Scott and Miss Austen, even from Tennyson and Browning to Keats, Coleridge, Wordsworth, and Shelley.

Observations like these, however, are rather in the nature of individual fancies than impersonal or 'objective' criticisms.

349. In the last hundred years the world has seen great wars, great national and social upheavals, great religious movements, great economic changes. Literature and Art have had their triumphs, and have permanently enriched the intellectual inheritance of our race. Yet, large as is the space which subjects like these legitimately fill in our thoughts, much as they will occupy the future historian, it is not among them that I seek for the most important and the most fundamental differences which separate the present from preceding ages. Rather is this to be found in the cumulative products of scientific research, to which no other period offers a precedent or a parallel. No single discovery, it may be, can be compared in its results to that of Copernicus. No single discoverer can be compared in genius to Newton. But in their total effects, the advances made by the nineteenth century are not to be matched. The difficulty is not so much to find the departments of knowledge which are either entirely new or have suffered complete reconstruction, but to find the departments of knowledge in which no such revolutionary change has taken place. Classical scholarship, the political history of certain limited periods, abstract mechanics, astronomy, in so far as it depends on abstract mechanics—can this list be very greatly lengthened? I hardly think so. And if not,

consider how vast must be the regions first effectively conquered for knowledge during the period under discussion.

But not only is this surprising increase of knowledge new, but the use to which it has been put is new also. The growth of industrial invention is not a fact we are permitted to forget ; we do, however, sometimes forget how much of it is due to a close connection between theoretic knowledge and its utilitarian application, which in its degree is altogether unexampled in the history of mankind. It was dreamed of in the speculations of poet-philosophers like Bacon ; here and there it has been sporadically exemplified. Thus surgery must, I suppose, have always depended largely on anatomy, navigation upon astronomy, telescope-making upon optics, and so on. But, speaking broadly, it was not till the present century that the laboratory and the workshop were brought into intimate connection ; that the man of practice began humbly to wait on the man of theory ; that the man of practice even discovered that a little theory would do him no irretrievable damage in the prosecution of his business.

I suppose that at this moment if we were allowed a vision of the embryonic forces which are predestined most potently to affect the future of mankind, we should have to look for them, not in the legislature, nor in the press, nor on the platform, not in the schemes of practical statesmen, nor the dreams of political theorists, but in the laboratories of scientific students whose names are but little in the mouths of men, who cannot themselves forecast the results of their own labours, and whose theories could scarce be understood by those whom they will chiefly benefit.

350. Marvellous as is the variety and ingenuity of modern industrial methods, they almost all depend, in the last resort, upon our supply of useful power, and our supply of useful power is principally provided for us by methods which, so far as I can see, have altered not at all in principle, and strangely little in detail, since the days of Watt. Coal, as we all know, is the chief reservoir of energy from which the world at present draws ; and from which we in this country must always draw. But our main contrivance for utilising it is the steam-engine ; and by its essential nature the steam-engine is extravagantly wasteful ; so that when we are told, as if it was something to be proud of, that this is the age of steam, we may admit the fact, but can hardly share the satisfaction. Our

coalfields, as we know too well, are limited. We certainly cannot increase them; the boldest legislator would hesitate to limit their employment for purposes of domestic industry; so that the only possible alternative is to economise our method of consuming them. And for this there would indeed seem to be a sufficiency of room. Let a second Watt arise; let him bring into general use some mode of extracting energy from fuel which shall *only* waste 80 per cent of it—and lo! your coalfields, as sources of power, are doubled at once!

The hope seems a modest one, but apparently we are not yet in sight of its fulfilment; and therefore it is that we must qualify the satisfaction with which, at the end of the century, we contemplate the unbroken course of its industrial triumphs. We have, in truth, been little better than brilliant spendthrifts. Every new invention seems to throw a new strain upon the vast, but not illimitable, resources of nature. We dissipate in an hour what it required a thousand years to accumulate. Sooner or later the stored-up resources of the world will be exhausted. Humanity, having used or squandered its capital, will thenceforward have to depend upon such current income as can be derived from the diurnal heat of the sun and the rotation of the earth, till, in the sequence of the ages, these also begin to fail. With such remote speculations we are not now concerned; it is enough for us to take note how rapidly the prodigious progress of recent discovery has increased the drain upon the natural wealth of old manufacturing countries, and especially of Great Britain; and at the same time frankly to recognise that it is only by new inventions that the collateral evils of old inventions can be mitigated; that to go back is impossible; that our only hope lies in a further advance.

After all, however, it is not necessarily the material and obvious results of scientific discoveries which are of the deepest interest. They have effected changes more subtle, and perhaps less obvious, which are at least as worthy of our consideration, and are at least as unique in the history of the civilised world.

351. The discoveries in physics and in chemistry which have borne their share in thus re-creating for us the evolution of the past are in process of giving us quite new ideas as to the inner nature of that material Whole of which the worlds traversing space are but an insignificant part. Differences of quality, once thought

ultimate, are constantly being resolved into differences of motion or configuration. What were once regarded as things are now known to be movements. Phenomena apparently so wide apart as light, radiant heat, and electricity are, as it is unnecessary to remind you, now recognised as substantially identical. The arrangement of atoms in the molecule, not less than their intrinsic nature, produces the characteristic attributes of the compound. The atom itself has been pulverised, and speculation is forced to admit as a possibility that even the chemical elements themselves may be no more than varying arrangements of a common substance. Plausible attempts have been made to reduce the physical universe, with its infinite variety, its glory of colour and of form, its significance, and its sublimity, to one homogeneous medium, in which there are no distinctions to be discovered but distinction of movement or of stress; and although no such hypothesis can, I suppose, be yet accepted, the gropings of physicists after this, or some other not less audacious unification, must finally, I think, be crowned with success.

The change of view which I have endeavoured to indicate is purely scientific, but its consequences cannot be confined to science. How will they manifest themselves in other regions of human activity—in Literature, in Art, in Religion? The subject is one rather for the lecturer on the twentieth century than for the lecturer on the nineteenth. I at least cannot endeavour to grapple with it. But before concluding, I will ask one question about it and hazard one prophecy. My question relates to Art. We may, I suppose, say that artistic feeling constantly expresses itself in the vivid presentation of sensuous fact and its remote emotional suggestion. Will it in time be dulled by a theory of the world which carries with it no emotional suggestion, which is perpetually merging the sensuous fact in its physical explanation, whose main duty indeed it is to tear down the cosmic scene-painting and expose the scaffolding and wheelwork by which the world of sense-perception is produced? I do not know. I do not hazard a conjecture. But the subject is worth consideration.

So much for my question. My prophecy relates to Religion. We have frequently seen in the history of thought that any development of the mechanical conception of the physical world gives an impulse to materialistic speculation. Now, if the goal to which, consciously or unconsciously, the modern physicist is pressing, be ever reached, the mechanical view of things will receive an extension and a complete-

ness never before dreamed of. There would then in truth be only one natural science, namely, physics; and only one kind of explanation, namely, the dynamic. If any other science claimed a separate existence it could only be because its work was as yet imperfectly performed, because it had not as yet pressed sufficiently far its analysis of cause and effect. Would this conception, in its turn, foster a new and refined materialism? For my own part I conjecture that it would not. I believe that the very completeness and internal consistency of such a view of the physical world would establish its inadequacy. The very fact that within it there seemed no room for Spirit would convince mankind that Spirit must be invoked to explain it. I know not how the theoretic reconciliation will be effected; for I mistrust the current philosophical theories upon the subject. But that in some way or other future generations will, each in its own way, find a practical *modus vivendi* between the natural and the spiritual I do not doubt at all; and if, a hundred years hence, some lecturer, whose parents are not yet born, shall discourse to your successors in this place on the twentieth century, it may be that he will note the fact that, unlike their forefathers, men of his time were no longer disquieted by the controversies once suggested by that well-worn phrase, "the conflict between Science and Religion".

Novels.

[See also "LITERATURE".]

352. Statisticians devote themselves to many calculations of small interest to the world at large. There is one calculation which I wish they could make, and that is, to give us the percentage of persons who ever take a sincere interest in anything which deserves to be called literature which is not in the shape of a novel. It is hard to believe that there was a time when the world did without novels, and, in its own opinion, did well without novels. Like tobacco and the daily Press, novels have now become a general necessity. You may have your own special views both as to tobacco and as to the daily Press, but, whatever your individual views may be, every impartial observer has long ago come to the conclusion that the world will insist upon having both of these luxuries to the end of time. They belong to these superfluities which, by the progress of events, have become general necessities. And what is true of these luxuries or of these necessities—call them which you please—is equally true of the modern novel. It is impossible to conceive a time arriving when the great bulk of the reading world will be content to be deprived of their annual supply of narrative literature, poured forth each year apparently in a stream of ever-increasing volume—a stream which, whether it carries cargoes of value or not, is not likely, in my judgment at all events, ever to be allowed to go unfreighted to the sea. It is an interesting speculation, a speculation like most others connected with the future, of very small practical value, but an interesting speculation nevertheless, to reflect as to what the future of the novel is to be. I take it that there is hardly any instance in literature of any sub-class of composition being cultivated with success for an indefinite period. Such classes seem to have, like other natural products, their periods of rise, their periods of culmination, and their periods of decay. And the cause of that decay is commonly to be found either in the habit they have of driving peculiarities to excess, so that the whole species of composition seems weighed down by its own exaggerations, or else dying away in a kind of senile imbecility, and perishing slowly amid general contempt. I think you may find an example of the first case in the death of the Elizabethan Drama, and of the second in that particular kind of literature of which Pope was the greatest ornament. But the novel, as far as I can judge, appears likely to suffer, or at all events likely to perish,

from neither of these diseases. If there be any signs of weariness, of fatigue at all, any signs of decadence or decay, perhaps we should look for it in the obvious difficulty which novelists now find in getting hold of appropriate subjects for their art to deal with. Scott, remember, had not only his unique genius to depend upon, but he had the special good fortune to open an entirely new vein, to strike, practically, an entirely new subject or set of subjects, to give to the world the delight of looking at a set of pictures, of periods, of countries, of ranks of society, of forms of civilisation, of which they had no notion before.

Where is the modern novelist to find a new vein? Every country has been ransacked to obtain theatres on which their imaginary characters are to show themselves off. Every period has been ransacked to supply historical characters, or imaginary characters belonging to particular ages, who are to provide the *dramatis personæ* of these imaginary tales. We have stories of civilised life, of semi-civilised life, of barbarous life. There is hardly an island in the Pacific Ocean—there is not a part of Africa, of America, of Asia, or of Europe—in which the novelist has not sought for, and often found with great success, fresh material on which to exercise himself. We have novels of the natural and the supernatural; we have scientific novels; we have thaumaturgic novels; we have novels dealing not only with what is beautiful but with what is ugly, not only with what is interesting but with what is uninteresting; we have novels in which everything which could happen to anybody happens to the hero in the course of the three volumes; and we have novels in which the peculiarity seems to be that nothing happens to anybody from the beginning to the end. Finally, so hardly set are we for subjects that even the quintessence of dullness is extracted from the dullest lives of the dullest localities, and turned into a subject of artistic treatment. A dullness that never was on sea or land—to parody the quotation so happily used by our Chairman this evening—is now employed with exquisite and admirable skill to furnish forth entertainment for mankind at large. I am far from denying that even this may be, and is, a legitimate subject for artistic treatment, though I frankly admit that the works produced under that particular form of inspiration are works which I prefer to admire at a distance.

If it be true, as I think it is true, that the whole field of history, the whole world of geography, that every class, every section of mankind, has been ransacked for subjects, there is yet one, strange as it may seem—there really is one aspect of human nature, and perhaps the most interesting of all, which, for obvious reasons, has been very sparingly treated by the novelist. I mean the development of character extending through the life of the individual. The development of character arising out of the stress of some particular shock, some particular concatenation of circumstances, has of course been from time immemorial the great theme of dramatic authors and of authors of fiction: but the aspect of human nature which is dealt with by biography has from the very nature of the case not lent itself readily to artistic

treatment in the form of fiction. You hear it sometimes stated that a novel is after all an imaginary biography. In truth, no description could be less accurate. A novel never—well, I was going to put it too strongly—a novel seldom or never, not in one case in a hundred, not in one case in a thousand, attempts to take an individual and to trace what in natural science would be called his life history. The very pleasure which we get from a good biography—the tracing of a man's life from childhood to youth, from youth to maturity, from maturity to age—is practically excluded from the sphere of the novelist; and it is curious that that should be so at a time when the historical aspect of things, when the life history of individuals, of institutions, of nations, of species, of the great globe itself, forms so large a portion of the subject-matter of science, and gives so great an interest to all scientific and to all historical studies. It would be very inappropriate and very unnecessary to dwell upon the reasons why this biographical form of fiction is difficult—I will not say impossible, but difficult; and I certainly do not venture to foretell that any artist will be found able to overcome the difficulty.

But whatever be the future of the novel, whatever be the future of creative and imaginative literature—and sometimes most of us are tempted to feel that the future is clouded with many doubts—we may always console ourselves by the reflection that every great literary revival has been preceded by a period in which no revival could by any possibility have been anticipated by the closest critic of the time. I doubt whether any contemporary of Sidney could have foreseen Shakespeare. I doubt whether anybody living under the Commonwealth could really have foreseen Dryden in his maturity. I feel sure that nobody who lived at the time of the death of Johnson could really have foreseen Wordsworth and Coleridge and Scott. It may be true that, looking back, we can find the germs of what ultimately burst out into those great literary revivals; but no contemporary spectator, however acute his vision, however anxious to see the first dawn of some new literary day, could have ventured to prophesy of that which only a few years was destined to bring to the birth; and, therefore, if, though admiring greatly the contemporary efforts of our novel writers, I feel that nevertheless, in spite of their scholarly ability, their inventiveness, their power of style, something of fatigue, something of weariness, appears to hang over contemporary production, that is no ground in my judgment for despairing of the future. We can convince ourselves by studying the past that literary prophecy is, of all prophecy, the vainest, and in this particular instance we may draw consolation from that conclusion. [1897.]

Polar Exploration.

353. I suppose it is about three centuries and a half since this country took the lead, which it has never yet lost, in the exploration of new and unknown regions of the world. We all look back with pride to the great days of Elizabeth, and to the long list of heroes, who, exploring and fighting by turns, added so much to the knowledge of the world, and, let me add, to the sphere of influence of the Empire. Sir Ernest Shackleton has chosen as the sphere of his activities, not the region on which public attention has been most concentrated of recent years, namely, the North Pole: he has chosen the opposite end of the axis on which this earth revolves, and I think he is right. After all, there is no special interest attaching to the geographical or astronomical expression "the Poles of the earth". What is of interest, and what is of importance, is that we should gain some knowledge of those portions of the world hitherto hidden from human eyes, and that we should do all that we can to make those scientific explorations in themselves profoundly interesting, which, quite apart from their speculative interest, have proved, and are likely to prove, of such great importance to the prosperity of the race.

In the North Pole, or so far as the North Pole is concerned, I take it there is little to be discovered. The region round the North Pole is all of one character, and scientific observations could be made, I imagine, just as well fifty miles, or a hundred miles, in any direction south of it, as they could at the critical point which has been the object of so much courageous endeavour to reach. Far otherwise is it with the South Pole; and, speaking for myself, my imagination is far more stirred by the hope of exploring, for example, the untrodden valleys and peaks of the Himalayas, and those great fields which are no mere oceans covered with ice, but, as Sir Ernest will tell you later, great areas with vast mountains, glaciers, volcanoes, of which nothing practically was known in our grandfathers' time, of which much still remains to explore, and of which Sir Ernest himself has not been the first indeed, but the greatest of explorers.

I mentioned the great explorers and fighters of the sixteenth century. Their courage and their love of adventure were beyond praise. But there is the great difference between their endeavours and the endeavour of explorers like Sir Ernest Shackleton and his comrades, for behind all the great work of the Elizabethan voyagers there lay always the desire for gold, the desire for territory, the desire for some great material advantage, which, no doubt,

was accompanied by a sincere desire to spread religion, a sincere desire to do the best they could for their country, but which remains on the very surface of all the history of the time as showing, at all events, that their dealism was touched, and perhaps alloyed, by some baser element. Let nobody believe that the idealism of our century is inferior to that of our forefathers. That is not so; and such courageous adventures as this on which Sir Ernest Shackleton is engaged are the standing proof of it, for there is no territory to be gained, no enemies to be conquered, no vulgar ambitions to be satisfied. Knowledge, science—ends which all nations without jealousy may join together to further—these were the ends which he pursued, and these are the ends which he has done so much to attain. There are critics who tell you that these expeditions may have their value: they may satisfy a barren curiosity, they may add to the manhood and the vigour of the nation, but they do nothing else. Believe them? No! These expeditions have, and must have, great results for science, and there has never yet been a great result attained for science which has not sooner or later had its reaction upon the material fortunes of the whole human race. . . . [1910.]

Political Economy.

354. No dexterity of treatment, no literary skill, will make political economy amusing; nor will the average of mankind ever take delight in studies which require abstract thought or concentrated attention. . . . [1885.]

355. I shall here assume, for the sake of argument, that political economy is to be accepted as true in the same sense that other sciences are accepted as true—that is, not blindly and irrevocably, but subject to revision and development; and that it is to be regarded as a guide in the same way that other sciences are regarded as guides, that is, with a due recognition of the fact that the complexity of nature never quite corresponds with the artificial simplicity of our premises, and that in proportion as the correspondence is imperfect, the result of our reasoning must in practice be applied with caution. . . . [1885.]

356. The study of economic facts is a necessary preliminary to any judicious treatment of some of the most important problems of the day. . . . The true, if obvious, antidote to the disgust excited by the extravagant claims put forward on behalf of political economy, is to reduce those claims within strictly reasonable limits. Now what are those limits? Two there are, constantly violated, and sometimes by the greatest economic authorities, to which I would specially draw your attention. The first depends on the fact that political economy is a science, and, as such, deals in strictness only with laws of nature, and not with the rules of conduct or policy which may be founded on those laws. The second depends on a fact (too often forgotten) that the science of political economy, dealing as it does with only a few of the complex facts of life, cannot on most questions supply the politician with adequate grounds for framing his policy. . . . [1885.]

357. A political economist, as such, has no business to be a politician. However strong his convictions may be, however much his own inclinations may tempt him to the advocacy of any particular mode of social organisation, he should rigidly abstain, in his investigation of the laws of wealth, from loading his pages with any practical propaganda. Science is of no party. It seeks no object, selfish or unselfish, good or bad. It is unmoved by any emotion ; it feels no pity, nor is it stirred by any wrong. Its sole aim is the investigation of truth and the discovery of law, wholly indifferent to the use to which those investigations and those discoveries may afterwards be put. [1885.]

358. Many of the most important considerations which should determine a political decision lie altogether outside the field with which an economist is at liberty to deal. The economist investigates only the laws regulating the production, exchange, and distribution of wealth ; and in order to get this problem within a manageable compass, in order to avoid being confronted with calculations of hopeless complexity, he usually assumes that the human beings who produce, exchange, and consume, are actuated by no other motive than that of securing, under a régime of free competition, as large a share as possible of this wealth for themselves. The politician, on the other hand, who has to decide what course should be pursued, not in the abstract world of science but in the concrete world of fact, cannot so limit his views. He has to provide, in so far as in him lies, for the spiritual and material well-being of the real human being, not of the imaginary wealth producer and wealth consumer which science is obliged to assume ; and knowing this, knowing that man does not live by bread alone, but is a creature of infinite variety living in a most complicated world, he can seldom decide any practical problem on purely economic grounds. [1885.]

359. I plead not for any special scientific doctrine, but for the application to social phenomena of scientific methods. Nor has there ever been a time when, in my judgment, this was more required than it is now. Society is becoming more and more sensitive to the evils which exist in its midst ; more and more impatient of their continued existence. In itself this is wholly good ; but, in order that good may come of it, it behoves us to walk warily. It

is, no doubt, better for us to apply appropriate remedies to our diseases than to put our whole trust in the healing powers of nature. But it is better to put our trust in the healing powers of nature than to poison ourselves straight off by swallowing the contents of the first phial presented to us by any self-constituted physician. And such self-constituted physicians are about and in large numbers—gentlemen who think that they pay Providence a compliment by assuming that for every social ill there is a speedy and effectual specific lying to hand; who regard it as impious to believe that there may be chronic diseases of the body politic as well as of any other body, or that Heaven will not hasten to bless the first heroic remedy which it pleases them in their ignorance to apply. It is true that without enthusiasm nothing will be done. But it is also true that without knowledge nothing will be done well. Philanthropic zeal supplies admirable motive power, but makes a very indifferent compass; and of two evils it is better, perhaps, that our ship shall go nowhere than that it shall go wrong, that it should stand still than that it should run upon the rocks. As, therefore, nature knows nothing of good intentions, rewarding and punishing not motives but actions; as things are what they are, describe them as we may, and their consequences will be what they will be, prophecy of them as we choose; it behoves us at this time of all others to approach the consideration of impending social questions in the spirit of scientific inquiry, and to be impartial investigators of social facts before we become zealous reformers of social wrongs. . . . [1885.]

360. Now Professor Nicholson has undertaken a very formidable task—the task, namely, of proselytising the newspaper Press of this country. For my own part I have never ventured upon any undertaking so audacious in character. The newspaper Press of this country is one of the institutions under which we live, which we submit to, which we profit by, which we suffer from, but which we do not criticise. At all events that is the attitude which I have always taken up upon this important subject. But one comment I may perhaps be permitted to make upon the line which Professor Nicholson has taken to-night. He has assumed throughout his address that the writers in newspapers and the newspapers themselves fulfil in modern society a function analogous to that of the Church in earlier ages and of missionaries of the present time in less civilised communities. I do not deny that there may be some particle of truth in that view.

But there is another view of the newspaper Press which, I think, also

has its element of truth. Now, what is a newspaper? I presume it is, in the first instance, a commercial speculation requiring an enormous capital, great skill and dexterity in the management of that capital; and, like all other undertakings of a similar kind, those who run the concern have got to look to their customers. They do not exist primarily—or at all events I presume the capitalist who provides the money does not exist—for the purpose of converting the people. He exists largely for the purpose of obtaining dividends, and I am not at all sure that Professor Nicholson is right in supposing that by practising sound economy dividends are likely to be increased. I have always been profoundly interested in a paradox—an unsolved paradox, as I think it—which lies at the root of all these discussions. Political economy, if it is anything in the world, is a science. If it is not a science, we exist—this Society exists—in vain, for our object, that for which we exist, for which we have come together, is to promote directly scientific investigations. Now the public have never yet mixed themselves up in scientific investigations without spoiling the investigations and doing themselves a good deal of harm. Take medicine. Perhaps it is flattering medicine to describe it as a science; at all events those who pursue it do their best to pursue it on scientific principles. But directly the public mix themselves in it, directly Party feeling, which is an essential element in all popular feeling, arises, you have the most paradoxical, and in some cases the most disastrous results. Consider vaccination. Now I have never attempted to fathom the medical theory lying behind vaccination, to theorise on the subject as an expert, and therefore I look with a sort of remote interest on the quarrel between the doctors, on the one hand, who think they have settled the matter in a scientific spirit, and that section of the people, on the other hand, which have not studied it in a scientific spirit at all, but are determined that their feelings shall override science. Science has often been proved wrong: instinctive, uneducated public opinion has in many cases been proved right. But I have no doubt that if you are going to allow questions of scientific interest to be decided by universal suffrage, you will not do much good to universal suffrage, and you will absolutely ruin science. For though science is often wrong, it can only get right and develop itself in the direction of truth by being allowed free play, outside the influence of those popular forces which tend to divert it out of a scientific direction.

Fortunately for us, the other branches of science, closely as they are connected with the development of civilisation, are so far beyond popular interest or knowledge that the public are ready to leave them alone. I suppose if we could make a true diagnosis of the causes which have produced the great social improvement and development of the last hundred or hundred and fifty years, we should put at the very head of these causes first the growth of scientific knowledge in mathematical, in physical, and in other directions. But the public who have profited by these labours hardly realise

themselves how much they have profited by them. At all events, they never venture to put their finger in the pie or to suggest to the mathematical physicist or chemist what view he ought to take of the properties of matter, or the mode in which energy can most usefully be applied for the purposes of human nature, interest, and progress in these branches of science. The public have left the scientific man alone. They have but vaguely understood the character of his labours—they have been content to profit by them without apprehending them.

In political economy it has been, and is now more and more, different every day. It always has been different, and the difference has emphasised itself day by day; and the result is that you do not leave the economist to work out his results in scientific independence as you permit the chemist or the physicist, but the public insist on coming in at any moment and pronouncing on the results of labours from which, therefore, they do not draw the full profit which they might draw. I do not pretend to be able to see any solution of this difficulty. The idea that a democracy—or without using the word democracy, which appears to suggest controversies which are far from our minds on the present occasion—the idea that any large body of public opinion can express views worth having on difficult economic subjects appears to me to be absurd. You have only to ask the first man in the street what his views are upon some very simple economic problem, not at all more difficult to understand than the fifth proposition of Euclid, and he will tell you those are abstract metaphysical discussions far above his ability, but that common-sense tells him this or the other with regard to the practical issue. The man you meet in the street is the man who rules our destinies, and whether our destinies are going to be better ruled under his scientific guidance than they would be if we were really permitted to profit by the unselfish scientific investigations of economists I do not pretend to say. At all events, of this I despair. I do not believe that, in spite of Professor Nicholson's address, we shall ever get newspapers which are run on commercial principles to insist upon their readers understanding scientific political economy. I do not believe you will ever get the public to take the trouble to master the real elements of the problem on which it may be in some cases that its own economical prosperity depends. Therefore, unless they will consent to follow the teaching of those who are prepared to devote their minds to these subjects, or unless, which is possible, the untutored instincts of the community—which is, I say, possible, though I think unlikely—are to be a better guide of public policy than are the carefully-thought-out deductions of men of science—unless one of these two contingencies occurs, I confess I think it is more than probable that the community will commit many economic blunders, from which both the generation which commits them and those who come after for many generations will suffer. . . . [1894.]

361. After all, privacy and detachment from public controversy is an immense advantage for any body of persons who desire to treat a scientific subject in a strictly scientific spirit. I do not say that there are not advantages in the great publicity to which economic discussion has now reached. I do not say that times in which economic subjects have become for the moment popular, and for the moment occupy the minds of the public and the mouths of platform speakers, are not periods in which much gain may accrue to those who are prepared to treat these subjects in a strictly scientific and, to use rather an un-English word, objective spirit. But it is vain to hope that when any scientific subject comes down into the market-place it will be treated in the market-place in a strictly scientific manner. It never has been so, and it never will be so. I do not venture to balance the gains and the losses of the two methods of treatment. There are gains on both sides, and there are losses on both sides.

I confess that, speaking for myself, who perhaps come across the platform side of the matter rather more than many gentlemen in this room, I rather prefer the quiet shade of scientific investigation to the rather perturbing glare to which we are now getting almost painfully accustomed. The duties which such a change of circumstances imposes upon this Society are no doubt considerable. It is, I believe, quite impossible that when a subject which has a scientific and a popular side comes up for popular discussion you should not find that that popular discussion harks back, as it were, to old, and in some respects, antiquated controversies. You find it in all departments of thought; you find it perhaps most in theological discussions, when the really cultivated theologian speaks and thinks in almost a different language (I do not say that in fundamentals he differs) from the language of those who have just learned or have inherited a mode of expression and a mode of thought which was fitting in the times of our fathers or grandfathers, but no longer fits the changed conditions of a changing time.

It is so in every science which comes down for popular discussion; and we have to bear with it, because neither your eloquence nor mine can possibly change it. We have to submit to the fact that the popular mind insists upon catchwords, and is determined to divide opinion as opinion was divided in different circumstances and when different controversies raged. The public mind dislikes qualifications; it regards distinctions with which it is not familiar as almost carrying with them an element of hypocrisy; and it is hard to know in those circumstances how those who treat a scientific subject in a scientific spirit ought to demean themselves. I need not say that I am not talking of myself, because being a politician my character is already, and has long been, entirely gone! Nobody would ever consent to suppose that any utterance of mine, either in the House of Commons or on the platform, was dictated by a simple-minded eye to scientific truth! I am not speaking of persons so unfortunately situated

as I am, but of the Society of which we are all members; and many of these members have the good fortune, so far at all events, to have escaped being involved in strictly party or sectarian controversies. . . . [1904.]

362. If a man of science once lets the public think that he is speaking not in the interests of his science, but in the interests of his party; if he once allows the view to get abroad that his expression of opinion may have its origin in his scientific views, but has a double parentage, and that the scientific views are in some sense moulded in conformity with our political differences, his whole authority from that moment will absolutely vanish,—he will sink to the level of the unfortunate person who now addresses you. Let him at all costs avoid that danger. It is quite true that he will in those circumstances not feel that he is to any great extent influencing the current of contemporary thought; but he will be wrong. He is influencing it if he treats a scientific subject in a scientific spirit. He may not be quoted by this or that politician, he may not figure largely in election addresses, but he will do what the great economists in the past have done—he will slowly mould public opinion; and if he aims too quickly at attaining that result he will only sacrifice what he can get for something which he cannot get and which, if he could get, would not be worth having. After all, in so far as political economy is a science at all (and I am the last person to deny it that proud title to distinction), it must be absolutely international in its character. People talk of an English, a German, a French, or an American school of political economy. In so far as they talk in that way they show conclusively that political economy to that extent has not yet thoroughly earned its title to a position among the sciences. There is no such thing as English physics as distinguished from German physics, or German mathematics as distinguished from French mathematics. I do not say there may not be certain schools having the impress of great teachers belonging to one or the other nationally, but *quâ* science, and as a science, political economy must be, and is, and will be, absolutely international in its character. Let everybody who has the chance, not only treat economic problems in a strictly objective spirit, but let him make it clear that that is the spirit in which he is trying to treat them. Thus, and thus only, will the student and the investigator obtain that authority over the changing forces of ordinary public opinion which it should be the proudest boast of men of science to obtain, which if they truly pursue science in a scientific spirit they have always obtained in the past, and which I cannot doubt for a moment they will always obtain in the future. [1904.]

363. Now what is it we mean by economics in its wider sense? I take it it is an attempt to consider the industrial and commercial work of

the world in its widest and broadest aspects. I am unfortunately not a man who has had any opportunity of actually dealing with manufactures or commerce or trade or industry in the direct practical manner which a man has to do who earns his livelihood, or whose work is thrown in these special directions. But I have often talked to the best of my ability with those who have a far wider and deeper knowledge of particular branches of industry, and I have always been struck by the difficulty they have found in expressing their experiences in the broader categories, and in the wider descriptions which are generally applicable. They can see their own business in the special light of their own experience; but they cannot bring it into harmony with general laws or general rules applicable to other places and other times, nor do they see the general relations in which their particular branch of business stands to other branches of business. On the other hand, the man of speculation, the man who devotes his time to studying the valuable work of the economists of this and other countries, he has not, and cannot have, any direct experience, or can rarely have any direct experience, of the business methods which are adopted, and which experience teaches us ought to be adopted in commerce, in finance, in railway work, and in the other great businesses on which the economic welfare of the world depends. And you have, therefore, at the two poles the theorist who teaches with clearly-cut ideas, with laws which can be expressed in very precise language and from which very accurate deductions can logically be made—I mean logically accurate deductions can be made; and you have at the other end of the scale a man intimately acquainted with the details of business, capable of himself undertaking or aiding in the carrying on of some vast railway or commercial enterprise, who has never in his life taught himself to look at the business which he conducts under the more general aspect which would naturally occur to any man properly trained in the wider views which it is the object of a school like the London School of Economics to inculcate on those who are its pupils. . . . [1906.]

364. There is always a tendency when any scientific or speculative subject becomes the subject of popular debate in a free country where government is carried on by party—there is always a danger that the scientific view, right or wrong—and I do not exaggerate the probability of correctness in pure economic theory—is invariably perverted by platform debate; and it cannot be otherwise. There is no use in attacking mankind for a universal defect if it be a defect which is universal. You have to take men as you find them, and you will not find, and you cannot hope to find, that people will, in general political controversy, whether it be carried on in the House of Commons or on the platform, use terms with accuracy. You will not find them appreciative of qualifications, however essential, and you must submit with a good grace or a bad grace—I submit with a bad grace—to hearing the refinements of scientific accuracy considerably mauled in

the process of general discussion. I do not think anybody can deny that that is a real danger ; and I do not think anybody can deny that the views of those who study these questions in a spirit of detachment, who look at these things quite apart from divisions in the House of Commons or events in an election, should be more widely known than they are. They are not unvaluable. Science, if it means anything, means a progressive knowledge, and I confess I detest the habit of the unreasoning appeal to authority, especially when, as is often the case, the authority is somewhat antiquated. In science there is, or ought to be, no such thing as authority whatever. A man of science builds, and gratefully builds, on the foundations left by his predecessors ; but they are but foundations. It is his business to raise tier after tier the fabric of ever-progressive knowledge, and I therefore think that a school like this, which has a living contact with the facts of the day, which has among its teachers those intimately and profoundly acquainted with all that theorists have taught, which has among its teachers men whose business it is to follow, step by step, all that is done in other great industrial communities, is calculated not merely to benefit the individuals who belong to the school, but to perform a great service to the community. [1906.]

Positivism.

[See also "NATURALISM".]

[*The extracts under this heading are taken from the Address, "The Religion of Humanity," delivered at the Church Congress, Manchester, October, 1888.*]

365. The word Positivism, as used by us to-day, I understand to carry with it no special reference to the peculiarities of Comte's system, to his views on the historic evolution of thought, to his classification of the sciences, to his theories of sociology, or to those curious schemes of polity and ritual contained in his later writings, which have tried the fidelity of his disciples and the gravity of his critics. I rather suppose the word to be used in a wider sense. I take Positivism to mean that general habit or scheme of thought which, on its negative side, refuses all belief in anything beyond phenomena and the laws connecting them, and, on its positive side, attempts to find in the 'worship of humanity,' or, as some more soberly phrase it, in the 'service of man,' a form of religion unpoluted by any element of the supernatural.

366. Some will deny at the outset that the term 'religion' can ever be appropriately used of a creed which has nothing in it of the supernatural. It is a question of words, and, like all questions of words, a question of convenience. In my judgment the convenience varies in this case with the kind of investigation in which we happen to be engaged. If we are considering religions from their dogmatic side, as systems of belief, to be distinguished as such both from ethics and from science, no doubt it would be absurd to describe Positivism, which allows no beliefs except such as are either scientific or ethical, as having any religious element at all. So considered it is a negation of all religion. But if, on the other hand, we are considering religion not merely from the outside, as a system of propositions, stating what can be known of man's relations to a supernatural

power, and the rules of conduct to be framed thereon, but from the inside, as consisting of acts of belief penetrated with religious emotion, then I think it would be unfair to deny that some such emotion may centre round the object of Positivist cult, and that if it does so it is inconvenient to refuse to describe it as a religion. It is doubtless unnecessary for me to dwell upon this double aspect of every religion, and of every system of belief which aspires to be a substitute for religion. For many purposes it may be enough to regard religion as a mere collection of doctrines and precepts. It is often enough when we are dealing with its history, or its development ; with the criticism of documents or the evidence of dogmas. But when we are dealing not merely with the evolution of religion or its truth, but with its function among us men here and now, we are at least as much concerned with the living emotions of the religious consciousness as with the framework of doctrine, on which no doubt they ultimately depend for their consistency and permanence.

Now, as it is certain that there may be supernaturalism without religious feeling, so we need not deny that there may be something of the nature of religious feeling without supernaturalism. The Deists of the last century accepted the argument from design. The existence of the world showed in their view that there must have been a First Cause. The character of the world showed that this First Cause was intelligent and benevolent. They thus provided themselves with the dogmatic basis of a religion, which, however inadequate, nevertheless has been and still is a real religion to vast numbers of men. But to the thinkers of whom I speak this theory was never more than a speculative belief. The chain of cause and effect required a beginning, and their theory of a First Cause provided one. The idea of an infinitely complex but orderly universe appeared by itself to be unsatisfactory, if not unintelligible, so they rounded it off with a God. Yet, while the savage who adores a stone, for no better reason than that it has an odd shape, possesses a religion, though a wretched and degraded one, the Deists of whom I speak had nothing more than a theology, though of a kind only possible in a comparatively advanced community. While there may thus be a speculative belief in the supernatural, which through the absence of religious feeling does not in the full sense of that word amount to a religion, there may be religious feeling divorced from any belief in the supernatural. It is indeed obvious that such feeling must be limited. To the variety and compass of the full religious consciousness it can, from the very nature of the case, never attain.

The spectacle of the Starry Heavens may inspire admiration and awe, but cannot be said, except by way of metaphor, to inspire love and devotion. Humanity may inspire love and devotion, but does not, in ordinarily constituted minds, inspire either admiration or awe. If we wish to find these and other religious feelings concentrated on one object, transfusing and vivifying the bare precepts of morality, the combining power must be sought for in the doctrines of Supernatural Religion.

367. The belief in a future state is one of the most striking—I will not say the most important—differences between positive and supernatural religion. It is one upon which no agreement or compromise is possible. It admits of no gradations—of no less or more. It is true, or it is false. And my purpose is to contribute one or two observations towards a *qualitative* estimate of the immediate gain or loss to some of the highest interests of mankind, which would follow upon a substitution of the Positivist for the Christian theory on the subject.

I say a qualitative estimate, because it is not easy to argue about a quantitative estimate in default of a kind of experience in which we are at present wholly deficient. The religion of humanity, divorced from any other religion, is professed by but a small and, in many respects, a peculiar sect. The cultivation of emotions at high tension towards humanity, deliberately dissociated from the cultivation of religious feeling towards God, has never yet been practised on a large scale. We have so far had only laboratory experiments. There has been no attempt to manufacture in bulk. And even if it had been otherwise, the conclusion to be drawn must for a long time have remained doubtful. For the success of such attempts greatly depends on the character of the social medium in which they are carried on; and if, as I should hope, the existing social medium is favourable to the growth of philanthropic feelings, its character is largely due to the action of Christianity. It remains to be proved whether, if Christianity were destroyed, a ‘religion of humanity’ could long maintain for itself the atmosphere in which alone it could permanently flourish.

368. To say that the doctrine of Immortality provides us with a ready-made solution of the problem of evil, is of course

absurd. If there be a problem, it is insoluble. Nevertheless, there can be no doubt that it may profoundly modify the whole attitude of mind in which we are able to face the insistent facts of sin, suffering, and misery. I am no pessimist. I do not profess to weigh against one another the sorrows and the joys of humanity, and to conclude that it had been better for us had we never been born. Let anyone try to perform such a calculation in his own case (about which he may be presumed to have exceptional sources of information); let him, in the same spirit of unimpassioned inquiry in which he would carry on any other piece of scientific measurement, attempt to estimate how much of his life has been above and how much below that neutral line which represents the precise degree of well-being at which existence is neither a blessing nor a curse, and he will henceforth treat with derision all attempts to perform the same operation for the human race.

But though this be so, yet the sense of misery unrelieved, of wrongs unredressed, of griefs beyond remedy, of failure without hope, of physical pain so acute that it seems the one overmastering reality in a world of shadows, of mental depression so deadly that it welcomes physical pain itself as a relief—these, and all the crookednesses and injustices of a crooked and unjust world, may well overload our spirits and shatter the springs of our energies, if to this world only we must restrict our gaze. For thus narrowed the problem is hopeless. Let us dream what dreams we please about the future; let us paint it in hues of our own choosing; let us fashion for ourselves a world in which war has been abolished, disease mitigated, poverty rooted out; in which justice and charity determine every relation in life, and we shall still leave untouched a residue of irremediable ills—separation, decay, weariness, death. This distant and doubtful millennium has its dark shadows; and then how distant and doubtful it is! The most intrepid prophet dare hardly say with assurance whether the gorgeous mountain shapes to which we are drifting be cloud or solid earth. And while the future happiness is doubtful, the present misery is certain. Nothing that humanity can enjoy in the future will make up for what it has suffered in the past: for those who will enjoy are not the same as those who have suffered: one set of persons is injured, another set will receive compensation.

Now I do not wish to be guilty of any exaggeration. It may freely be conceded that many persons exist to whom the knowledge that there are wrongs to be remedied is a stimulus to remedying them, and is nothing more; who can abstract their minds from

everything but the work in hand, and remain, like an experienced doctor, wholly undisturbed by the sufferings of those whom they are endeavouring to relieve. But I am not sure that this class is common, or is getting commoner. The sensitiveness to social evils is increasing, and it is good that it should increase. But the good is not unmixed. In proportion as the general sympathy gets wider, as the social imagination gets more comprehensive and more responsive, so will the number of those increase who according to their temper either rush frantically to the first quack remedy that presents itself, or, too clear-sighted to be sanguine, but not callous enough to be indifferent, yield themselves bondsmen to a sceptical despair. For the first of these classes I know not that anything can be done. There is no cure for stupidity. But for the second, the faith that what we see is but part, and a small part, of a general scheme which will complete the destiny, not merely of humanity, but (which is a very different thing) of every man, woman, and child born into the world, has supplied, and may again supply, consolation and encouragement, energy, and hope.

369. Conceive for one moment what an infinitely better and happier world it would be if every action in it were directed by a reasonable desire for the agent's happiness! Excess of all kinds, drunkenness and its attendant ills would vanish; disease would be enormously mitigated; nine-tenths of the petty vexations which embitter domestic life would be smoothed away; the competition for wealth would be lessened, for wealth would be rated at no more than the quantity of pleasure which it is capable of purchasing for its possessor; the sympathetic emotions would be sedulously cultivated as among those least subject to weariness and satiety; while self-sacrifice itself would be practised as the last refinement of a judicious luxury.

Now, love of self thus understood we should be right in ranking infinitely lower among springs of action than the love of God or the love of man. But we should assuredly be utterly wrong in confounding it with self-indulgence, of which it is usually the precise opposite, or in describing it as in any respect base and degraded. The world suffers not because it has too much of it, but because it has too little; not because it displaces higher motives, but because it is itself habitually displaced by lower ones. But though this be so, yet it must sometimes happen, however rarely, that rational love

of self conflicts with the disinterested love of man, if results in this world alone be taken into account. It is only if we are permitted to assume another phase of existence in direct moral relation with this one, that the contradiction between these guiding principles of conduct can be solved certainly and universally in a higher harmony.

370. I have sketched for you what the world might be if it were governed solely by reasonable self-love; and a comparison between this picture and the reality should satisfy any one how feeble a motive self-love is compared with the work which it has to perform. In this lies the explanation of a fact which, strangely enough, has been used as an argument to show the worthlessness of Christianity as an instrument for moralising the world. How comes it, say these objectors, that in the ages when (as they read history) the sufferings and joys of eternity were present with special vividness to the mind of Christendom, more effect was not produced upon the lives of men; that licentiousness and devotion so often went hand in hand; that the terrors of Hell and the hopes of Heaven were powerless to stay the hand of violence and oppression? The answer is, that then, as now, the conviction that happiness lies along one road and misery along another is seldom adequate to determine the path of the traveller. He will choose the wrong way, knowing it to be the wrong way, and well assured in his moments of reflection that he is doing not merely what he knows to be wicked, but what he knows to be inexpedient. Surely, however, this is not only conformable to the facts of human nature, but to the doctrines of Christianity. If the practice of the noblest conduct is a fruit that can spring from the enlightened desire for happiness, then have theologians in all ages been notably mistaken. But it is not so. However closely in theory the actions prescribed by self-love may agree with those prescribed by benevolence, no man has ever succeeded in performing them from the former motive alone. No conviction, for instance, that unselfishness 'pays' has ever made any man habitually and successfully unselfish. To promote the happiness of others solely as a means to our own, may be, and is, a perfectly logical and reasonable policy, but it is not a policy which human beings are capable of pursuing: and, as experience shows that the love of self must be barren unless merged in the love of others, so does the Church teach that rarely can this love of

others be found in its highest perfection unless associated with the love of God. These three great principles—great, but not co-equal, distinct in themselves, harmonious in the actions they prescribe, gaining strength from a combination often so intimate as to defy analysis, are yet, even in combination insufficient to control the inordinate ambitions, desires, and passions over which they are *de jure*, but seldom *de facto*, the unquestioned rulers.

371. The question, Is life worth living? when it is not a mere exclamation of weariness and satiety, means or should mean, Is there any object worth striving for, not merely as a matter of duty, but for its intrinsic greatness? Can we look at the labours of man from any point of view which shall satisfy, not the conscience merely, but also the imagination? For if not, if the best we can say of life is that, though somewhat lacking in meaning, yet where circumstances are propitious, it is not otherwise than agreeable, then assuredly in our moments of reflection it would *not* seem worth living; and the more we contemplate it as a whole, the more we raise ourselves above the distractions of the passing moment, the less worth living will it seem.

372. Consider for a moment the complexity of human affairs: our ignorance of the laws which govern the growth of societies; the utter inadequacy of any power of calculation that we possess to apply with confidence our knowledge of those laws (such as it is) to the guidance of the contending forces by which the social organisation is moved. The man who would sacrifice the good of the next generation for the greater good of the generation next but one is a fool. He neglects an age of which he may know a little for the sake of an age respecting which he can know nothing. He might, if he pleased, stumble along in the twilight; he prefers to adventure himself in the blackness of utter night. Yet what is a generation in the history of man? Nothing. And we, who cannot be sure whether our efforts will benefit or injure our grandchildren, are quietly to assume that we are in the way to contribute to the fortunes of the remotest representatives of the human race.

373. If we, then, regard the Universe in which we have to live

as a mere web of connected phenomena, created for no object, informed by no purpose, stamped with no marks of design other than those which can be imitated by Natural Selection, I see no ground for the faith that all honest effort will work together for the production of a regenerate man and a perfected society. Such a conclusion cannot be drawn from the notion of God, for by hypothesis there is no God. It cannot be drawn from any general survey of the plan on which the world is framed, or of the end for which it is constructed : for the world is framed on no plan, nor is it constructed to carry out any end. It cannot be drawn from a consideration of the histories of individual species or nations, for the inference to be drawn from these is that Nature has set bounds beyond which no alteration brings with it any sensible improvement. It cannot be deduced from what we know of man, for we have no knowledge of man more certain than that he is powerless consciously to bend towards the attainment of any remote ideal, forces whose interaction he is powerless to calculate or to comprehend. To me, therefore, it seems that the 'positive' view of the world must needs end in a chilling scepticism concerning the final worth of human effort, which can hardly fail to freeze and paralyse the warmest enthusiasm and the most zealous energy.

374. Comte was, I think, well advised when, in his later writings, he discouraged research into matters remote from obvious human interest, on the ground that such research is inimical to the progress of the Positive faith. Not Christianity, but Positivism, shrinks and pales in the light of increasing knowledge. For, while the Positive faith professes to base itself upon science, its emotions centre in humanity, and we are therefore treated to the singular spectacle of a religion in which each great advance in the doctrines which support it dwarfs still further the dignity of the object for which it exists. For, what is man, considered merely as a natural object among other natural objects? Time was when the fortunes of his tribe were enough to exhaust the energies and to bound the imagination of the primitive sage. The gods' peculiar care, the central object of an attendant universe, that for which the sun shone and the dew fell, to which the stars in their courses ministered, it drew its origin in the past from divine ancestors, and might by divine favour be destined to an indefinite existence of success and triumph in the future.

375. One of the objects of the 'religion of humanity,' and it is an object beyond all praise, is to stimulate the imagination till it lovingly embraces the remotest fortunes of the whole human family. But in proportion as this end is successfully attained, in proportion as we are taught by this or any other religion to neglect the transient and the personal, and to count ourselves as labourers for that which is universal and abiding, so surely must the increasing range which science is giving to our vision over the times and spaces of the material universe, and the decreasing importance of the place which man is seen to occupy in it, strike coldly on our moral imagination, if so be that the material universe is all we have to do with. It is no answer to say that scientific discovery cannot alter the moral law, and that so long as the moral law is unchanged our conduct need be modified by no opinions as to the future destiny of this planet or its inhabitants. This contention, whether true or not, is irrelevant. All developed religions, and all philosophies which aspire to take the place of religion, Lucretius as well as St. Paul, give us some theory as to the destiny of man and his relation to the sum of things. My contention is that every such religion and every such philosophy, so long as it insists on regarding man as merely a phenomenon among phenomena, a natural object among other natural objects, is condemned by science to failure as an effective stimulus to high endeavour. Love, pity, and endurance it may indeed leave with us: and this is well. But it so dwarfs and impoverishes the ideal end of human effort, that though it may encourage us to die with dignity, it hardly permits us to live with hope.

376. A philosophy of belief, I do not mean of religious belief, exclusively or even principally, but of all belief, has yet to be constructed. I do not know that its foundations are yet laid; nor are they likely to be laid by Positivist thinkers, on whose minds it does not for the most part seem yet to have dawned that such a philosophy is in any way required. Until some progress is made in this work I must adhere to an opinion which I have elsewhere defended, that much current controversy about the possibility of miracles, about the evidence for design, about what is commonly, though very absurdly, described as the 'conflict between science and religion,' can at best be only provisional. But when the time comes at which mankind shall have attained some coherent method of testing the validity of those opinions respecting the natural and

the spiritual worlds on which in their best moments they desire to act, then I hazard the guess, since to guesses we are at present confined, that adaptation to the moral wants and aspirations of humanity will not be regarded as wholly alien to the problems over which so many earnest minds are at present disquieting themselves in vain.

377. The 'religion of humanity' seems specially fitted to meet the tastes of that comparatively small and prosperous class who are unwilling to leave the dry bones of Agnosticism wholly unclothed with any living tissue of religious emotion, and who are at the same time fortunate enough to be able to persuade themselves that they are contributing, or may contribute, by their individual efforts to the attainment of some great ideal for mankind. But what has it to say to the more obscure multitude who are absorbed, and well-nigh overwhelmed, in the constant struggle with daily needs and narrow cares; who have but little leisure or inclination to consider the precise rôle they are called on to play in the great drama of 'humanity,' and who might in any case be puzzled to discover its interest or its importance? Can it assure them that there is no human being so insignificant as not to be of infinite worth in the eyes of Him who created the Heavens, or so feeble but that his action may have consequence of infinite moment long after this material system shall have crumbled into nothingness? Does it offer consolation to those who are in grief, hope to those who are bereaved, strength to the weak, forgiveness to the sinful, rest to those who are weary and heavy laden? If not, then, whatever be its merits, it is no rival to Christianity. It cannot penetrate and vivify the inmost life of ordinary humanity. There is in it no nourishment for ordinary human souls, no comfort for ordinary human sorrow, no help for ordinary human weakness. Not less than the crudest irreligion does it leave us men divorced from all communion with God, face to face with the unthinking energies of nature which gave us birth, and into which, if supernatural religion be indeed a dream, we must after a few fruitless struggles be again resolved.

The Press.

[See also "POLITICAL ECONOMY".]

378. For, after all, the connections in these modern days of democracy between Parliamentary government and the Press are so close and so intimate that though they have never been embodied in an Act of Parliament, though they find no place in the book of precedents or of Parliamentary custom, yet the connection is so close that perhaps the most important wheel of the political machine at the present moment is that which is supplied by the Newspaper Press of this country. I do not profess to say whether our present form of government is the best possible. Engineers, I believe, estimate the efficiency of a machine by comparing the proportion of the total energy used by the machine in external work with that which is used in internal friction. On that system of valuation I frankly admit that I do not think we are a very effective political machine, for it appears to me that the amount of internal friction is certainly out of all proportion to the amount of external work which the circumstances of our position enable us to do.

I do not know that we ought too rigidly to apply these mechanical parallels to political institutions. I, at all events, do not mean to quarrel with the institutions under which I live. I was born into the world about the middle of this century, and I mean to make the best of the period in which my lot is cast. I am certainly not going to say, either here or elsewhere, that I believe that the system of government by debate under which we live is not a system which can produce admirably fruitful results to the community at large. I confess that the burden thrown upon the individual is considerable, and that probably there are many gentlemen actively engaged in political work who would desire to see some kind of trades union, or agreement at all events let us call it, between the two sides in politics that for some months in each year—let us say six months of each year—there should be some abstention from political recrimination. I, at all events, so far as I am concerned, would gladly go into what I think in another sphere is called a retreat, and meditate over my own political sins, provided it were possible for me by such a proceeding to escape the necessity of commenting in public upon the political sins of my opponents. However, I see no sign of such a consummation at the present moment ; on the contrary, the appetite for oratory in the public

at large, like the appetite for newspapers with which it is closely connected, appears to be absolutely incapable of satisfaction. . . . [1892.]

379. Let it be noted that never yet since the increase of the franchise, and since these new weapons of Parliamentary warfare have been forged and used, never have we seen the government of this country carried on by any Administration that was in a small majority. That is the only experiment that has not been tried. I do not know whether it will be tried soon, but I am sure it will be tried sooner or later. I am sure the changes and chances in the political world make it inevitable that at some time—not a distant time—in the future some Government will have to take office in a democratic Parliament, in a Parliament acquainted by long practice with all the most modern developments of Parliamentary tactics, in a small majority; and I confess I look forward to that experiment with the greatest interest and curiosity. I should look forward to it with more alarm than I do if I had not before me the example which the English Press presents of a common sense of the responsibility of Englishmen. After all, public men, speaking on platforms, speak with an amount of personal responsibility, influenced by the fact that their names and speeches are given, and that they can be called to task for what they say.

The Press of this country speak under no responsibility of a particular character. Our Press is an anonymous Press, and is, therefore, an irresponsible Press so far as any external pressure can be brought to bear. And it is there I should judge of the common-sense and patriotism which Englishmen will bring to the consideration of public affairs, by considering how the Press wields the power reposed in it rather than how any particular politician uses such power as he may obtain by platform or Parliamentary speaking. Is it not the fact that of all the nations of the world we have developed at once the freest, the ablest, and the most patriotic Press? I do not desire to pour after-dinner laudations on any gentleman of the Press who may be here to listen; but I think it will be admitted by all observers, that though our Press is partisan, as every Press must be in a country where the Government is a Party Government, and, for the reason I have stated, rightly partisan, nevertheless they have always been animated by a sense of responsibility. They have always felt that they had a duty which they had to perform to the public as well as to the particular class of subscribers to their periodical. They have never descended to the sort of personalities which have disgraced the Press of other free countries. Nor have they been bound and fettered in a manner which has reduced and almost destroyed the utility of the Press in countries less happily situated than our own. Therefore it is, as it seems to me, that we must look forward to the two great experiments which we are destined to try in the next few years with some confidence, and that we may hope and believe that, in dealing with the problem with which we are face to face, we shall receive from the

Press, whether the Press represent one great Party in the State or the other great Party in the State, the assistance which has always been given, the moderating power which has frequently been exercised, and with the ability and patriotism which have invariably been displayed. . . . [1892.]

380. The Press of England has made such progress during the last two or three generations that every citizen of the Empire may well be proud of it as a mere example—if only as a mere example—of the intelligence, enterprise, and skill of her citizens. We habitually boast of the extension of our railway, our postal and telegraph system, as great undertakings which render the complex work of modern society possible ; but we ought to add, and we must add, the Newspaper Press, as an agent of communicating news—in its capacity of disseminating news, in its capacity as a great instrument for bringing into communication different classes of the community, as an advertising agent, which is, after all, of the first importance to any civilised society, inasmuch as it brings together those who have something to sell and those who have something to buy : in all these ways the Press of the country fulfils the function entrusted to them as, I believe, the Press of no other country can boast of doing. Some gentleman laughed when I mentioned advertising. Well, I think I shall have a word to say about advertising directly. I will only now mention it under this broad connection, because, in my judgment, the foreign correspondence, the Parliamentary report, and all the other machinery of communicating news to the public, really are not of more importance to the community than the power of communicating by advertisement, of bringing the buyer and seller together, and giving them some machinery for communicating their wishes one to another.

The thing that interests me most in the modern development of the Press is a point which I have seldom seen taken, but which is nevertheless of profound significance, so far as my judgment goes, in estimating the importance of the Press as a great social organism. We habitually assume what is, no doubt, the fact that a newspaper must necessarily be both a means of communicating news, and a means of promoting particular kinds of opinion. There is really no necessary connection between the two. It is a fact, no doubt, that every newspaper which communicates news also has its leading articles, in which it propagates certain opinions, gives effect to certain criticisms, and does its best to promote the growth of a certain class of public sentiment : but there is no necessary connection between those two functions, though both are undertaken by the Newspaper Press ; and it has always struck me as most singular, looked at from a purely abstract and philosophic point of view, that, as a matter of fact, the functions of a newspaper as a means of communicating news give it a power of supporting particular opinions wholly different, wholly alien, as it were, to the popularity of those particular opinions or to the number of the public

who desire to see those particular opinions expressed. I do not, of course, at all mean that in the long run it is not necessary for every newspaper, by its leading articles, by the general opinions which it expresses and enforces, to gain the favour of the particular class to whom it appeals; but everybody knows that a newspaper may gain such a position as an organ for disseminating news that on the basis of its purely commercial success it may advocate and promote for a period almost any opinions which it chooses. In a different sphere we call that an endowment. It is practically an endowment of a particular political or religious or social party, and the peculiarity of it is that those who are called upon to endow it have no notion of what they are doing, and very often strongly object to what is being done. I am addressing a Society which represents all newspapers, but which probably more represents the great Provincial Press of this country than it does the London Press. At all events, in its historic origin it did so, and it does so still. I remember a long time ago—it is within my memory—that a great provincial newspaper advocated, in its capacity as a guide to public opinion, sentiments which were not at all congenial to the great mass of the persons who advertised in its columns, and it occurred to them to try, by advertising in some other newspapers, with less circulation, to bring this particular newspaper to its knees, as it were. They totally failed in their attempt. It was discovered that this species of ‘boycotting’—to use a modern phrase—really would not stand against the individual interest of the advertiser, and the result was that a great community, by the mere fact that a newspaper got hold of a certain public and a certain circulation, were compelled, against their will, to subsidise opinions from which they profoundly dissented. I believe that a not very dissimilar case has happened recently in connection with a very interesting and important social problem—I mean the problem of publishing betting and gambling. There have been newspapers which have written very strongly upon that subject in their capacity as guides to public opinion, while in their capacity of purveyors of news they very properly, in my opinion, gave the odds on all the races. And what was the result? The result was that people who wanted to know the odds bought the paper, and by so doing subsidised or endowed the propaganda of the very opinions from which they most profoundly dissented.

Just conceive what some visitant from another planet, ignorant of the history of the Press, ignorant, let us say, of the general principles on which we regulate, and properly regulate, our social life, would say to such a state of things. He would say: ‘What are we to think of a community which deliberately permits an arrangement by which those are taxed to endow certain opinions who dissent from the opinions in almost everything?’ I think he would justly say that a more remarkable contrivance never had been devised by any intelligent being. Of course, we all know that this is a question which has grown up by a natural process; and by a process so natural that no human being would think of interfering: but when I hear

of the freedom of the Press, so ably eulogised by Sir Evelyn Wood, I cannot help thinking that, though by our laws we permit, and rightly permit, wisdom to cry in the market-place where she chooses, I do not think that anybody will regard her unless she is properly supplemented by a large advertisement sheet, and by very carefully compiled columns of news agreeable to the public which has to buy the paper.

I have dwelt upon this peculiarity of our modern journalism because the very circumstance that it has grown up naturally conceals how very singular it is. The growth itself has happened by a process so obvious that we are not lost in any surprise or admiration at the strange results ultimately arrived at; and the question that forces itself upon us is: if we have amongst us these great endowed corporations, which practically have it in their power to promote, irrespective of almost all public opinion, what views they choose to take on public policy, do we not run some danger that powers so great may be abused? I think that if this question had been put *a priori*, and without experience to my imaginary visitant from Saturn, he would have said there would be such a chance. I do not think, however, that if he had been accustomed to our system in its actual working, he would have thought that would be the case. Great as is the power of newspapers, I do not think anybody could say that it is to an important extent abused. They practically, being themselves the critics, are almost above criticism; and yet, though probably every public man feels that occasionally he receives an undeserved castigation from some important members of that great body, I do not think that any person would maintain that, as a whole, the immense and irresponsible powers of the English Press are abused for any base purpose whatever.

I do not think that this assembly would like me to dwell upon the superiority, upon the qualities in which I think we are distinguished for the better from the Press of other countries; but at all events we may, I think, justly boast and say of ourselves that, in the first place, the Press is absolutely independent of any Government influence or control. We may say of ourselves, in the second place, that any form of blackmailing—I allude to the darkest vices which have been alleged against the Press in certain parts of the civilised world—is absolutely unknown. And I think we may say, in the third place, that though, of course, a Radical politician does not expect flowery eulogies from a Unionist Press, no more than a Unionist politician expects to be photographed in the public interest in the best light by a Radical Press, still the Press, with all its power, never directs that power against individuals—that no individual's career has ever been ruined or crushed by a flagitious use of the great influence which the Press possesses; that on the whole, every side of every question does, in the long run, get a fair hearing through the medium of the great organisation which you represent; and that public opinion, though it may err for a moment, though it may wave backwards and forwards with the natural swing to which all public opinions are subjected, is nevertheless,

on the whole, well served by those great mediums of information, those great organs of propaganda, of which you, gentlemen, are the representatives. . . . [1895.]

381. I do not think it would be proper that I should terminate a speech of thanks in reply to this toast without saying, on behalf of all the members of the House of Commons present and absent, how much we recognise what we owe to those who watch and report our proceedings. There may be some kind of collision of interest. The man who did more than any one else to promote Parliamentary reporting about a hundred years ago is said to have summarised his opinion in this short sentence: "The members of the House of Commons never thought the report of their speeches too long, and the public never thought them too short". There is, no doubt, that perennial difference of opinion between the makers of speeches and those who first report and then print them. Nevertheless, although reporting is contrary to all the standing orders of the House, and is a gross breach of our privileges, it must be admitted that the reporting has been, and is, admirably done in this country. In the first place, it is, as far as I know, absolutely impartial. I do not say that of the accounts of the debates. I think if you compare the general conspectus, the general picture of a debate drawn in one journal with that in another of a different political complexion, you will probably find some difficulty in reconciling conflicting views. But the reporting of what is actually said is, I believe, absolutely impartial and excellent. Moreover, most of us who have to make speeches—and I am told that, judged by the number of columns, I make more speeches than anybody else in the House of Commons—suspect that the speaker owes more to the reporter than, perhaps, we are always prepared to admit. I do not go to the length of saying that all the good things are put into a speech which the speaker never uttered, though that has been done. Lord Brougham is said to have republished a speech of his into which the reporter had put a good many quotations from Cicero. I give public notice that if any speech of mine appears with Latin quotations in it those quotations are due to the reporter, and are not due to me. At all events, the classic languages apart, we all of us owe to the kind attention of the reporter the excision of many superfluities—not always, perhaps, regarded as superfluities by the orator, the correction of many gross errors of grammar, and an improvement of our oratory which we may be reluctant to admit, but which is nevertheless there. . . . [1908.]

382. Above all, let nobody suppose that I do not recognise to the full the function of the Imperial Press in promoting that mutual comprehension which is the basis of mutual esteem between different parts of the Empire.

There is always a difficulty in different sections of one great community fully understanding, fully sympathising with, and being always fair to other and different parts. I have heard it said that many gentlemen who come from Canada, or Australia, or New Zealand, or the Cape, are sometimes pained by the ignorance shown by dwellers in this part of the Empire with regard to even the largest of their domestic interests. They need not be pained that ignorance is to be found within these small islands, and you will find illustrations of it as regards centres of population no further distant than would occupy you in reaching them two or three or a half a dozen hours in a railway carriage. Let us remember that busy men, moving in the narrow circle of their own personal affairs, do not always find it easy sympathetically to grasp or thoroughly to understand the affairs of even their closest friends and neighbours in other parts of the same great community. That ignorance is perhaps greater at this moment in these islands of the Colonies than it is in the Colonies of these islands; but that is not going to be permanently the case. Every year the number of our countrymen who are born in other portions of the Empire is relatively increasing, and the time will certainly come when, unless trouble be taken to break down these artificial barriers, it will be as difficult for a Canadian or an Australian to understand and imaginatively to grasp the constitution and even the external appearance of these islands, the cradle of their race and the origin of their constitution, as it is for some of us to understand the condition of settlers in a new country with all the vast future which a new country opens out to its inhabitants.

If that be the present difficulty, and if it be a difficulty which time is like to augment rather than to diminish, to what instruments can we look to check what every one must admit would be, if left unchecked, a great evil and a great danger to the Empire? We are all of us parochial by instinct. It is natural to concentrate your mind upon the immediate controversy in which you yourselves and your own interests are obviously mainly concerned. But unless we can inculcate successfully among the great bulk of our population, wherever it may be found, that imaginative, sympathetic insight based upon knowledge, which is the only solid bond of unity—unless we can do that, we shall certainly deprive ourselves of one of the greatest of all bonds that can unite scattered peoples into one organic whole. And it is to carry out the end that I thus indicate that I look above all things to the labours of the Press. They can do it as no other force can do it. . . . [1909.]

Progress.

[See also "THE NINETEENTH CENTURY".]

[*Extracts 383 to 395 are taken from the Address to Glasgow University, November, 1891, delivered by Mr. Balfour when Lord Rector.*]

383. There is no more interesting characteristic of ordinary social and political speculation than the settled belief that there exists a natural law or tendency governing human affairs by which, on the whole, and in the long run, the general progress of our race is ensured. I do not know that any very precise view is entertained as to the nature of this law or tendency, its mode of operation, or its probable limits; but it is understood to be established, or at least indicated, by the general course of history, and to be in harmony with modern developments of the doctrine of Evolution.

We have got into the habit of thinking that the efforts at progress made by each generation may not only bear fruit for succeeding ones, in the growth of knowledge, the bettering of habits and institutions, and the increase of wealth, but that there may also be a process, so to speak, of *physiological accumulation*, by which the dexterities painfully learned by the fathers shall descend as inherited aptitudes to the sons, and not merely the manufactured man—man as he makes himself and is made by his surroundings—but the natural man also, may thus go through a course of steady and continuous improvement. It now seems, I think, probable, that not in this more than in other cases is biology necessarily optimist. For as it has long been known that the causes by which species have been modified are not inconsistent with an immobility of type lasting through geological epochs; as it is also known that these causes may lead to what we call deterioration as well as to what we call improvement; as it is impossible to believe that selection and elimination can play any very important part in the further development of civilised man; so now the gravest doubts have been raised as to whether there are any other physiological causes in operation by which that development is likely to be secured. If this be so,

we must regard the raw material, as I have called it, of civilisation as being now, in all probability, at its best, and henceforth for the amelioration of mankind we must look to the perfection of manufacture.

384. In our social and political speculations we are surely apt to think too much of ethnology, and too little of history. Sometimes from a kind of idleness, sometimes from a kind of pride, sometimes because the 'principles of heredity' is now always on our lips, we frequently attribute to differences of blood effects which are really due to differences of surroundings. We note, and note correctly, the varying shades of national character; and proceed to put them down, often most incorrectly, to variations in national descent. The population of one district is Teutonic, and therefore it does this; the population of the other district is Celtic, and therefore it does that. A Jewish strain explains one peculiarity; a Greek strain explains another; and so on. Conjectures like these appear to be of the most dubious value. We know by experience that a nation may suddenly blaze out into a splendour of productive genius, of which its previous history gave but faint promise, and of which its subsequent history shows but little trace; some great crisis in its fate may stamp upon a race marks which neither lapse of time nor change of circumstance seem able wholly to efface; and empires may rise from barbarism to civilisation and sink again from civilisation into barbarism, within periods so brief that we may take it as certain, whatever be our opinion as to the transmission of acquired faculties, that no hereditary influence has had time to operate. Now, if the differences between the same nation at different times are thus obviously not due to differences in inherited qualities, is it not somewhat rash to drag in hypothetical differences in inherited qualities to account for the often slighter peculiarities of temperament by which communities of different descent may be distinguished? Are we not often attributing to heredity what is properly due to education, and crediting Nature with what really is the work of Man?

So far, then, we have arrived at the double conclusion that, while there is, to say the least, no sufficient ground for expecting that our descendants will be provided by Nature with better 'organisms' than our own, it is nevertheless not impossible to suppose that they may be able to provide themselves with a much more commodious

'environment'. And this is not on the face of it wholly unsatisfactory ; for if, on the one hand, it seems to forbid us to indulge in visions of a millennium in which there shall not only be a new heaven and a new earth, but also a new variety of the human race to enjoy them ; on the other hand it permits us to hope that the efforts of successive generations may so improve the surroundings into which men are born that the community of the far future may be as much superior to us as we are to our barbarian ancestors.

385. Unquestionably mankind will be able to cultivate the field of scientific discovery to all time without exhausting it. But is it so certain that they will be able indefinitely to extend it? Industrial invention need never cease. But will our general theory of the material Universe again undergo any revolution comparable to that which it has undergone in the last four hundred years? It is at least uncertain. We seem indeed even at this moment to stand on the verge of some great co-ordination of the energies of nature, and to be perhaps within a measurable distance of comprehending the cause of gravitation and the character of that ethereal medium which is the vehicle of Light, Magnetism, and Electricity. Yet though this be true, it is also true that in whatever direction we drive our explorations we come upon limits we cannot, as it seems to me, hope to overpass.

386. No man will ever see what goes on in a gas, or know by direct vision how ether behaves. But we can all of us think of a collision or a vibration, and a few of us can deal with them by calculation. But observe how rapidly the difficulty of comprehension increases as soon as sensible analogies begin to fail, as they do in the case of many electric and magnetic phenomena ; and how quickly the difficulty becomes an impossibility when, as in the case of the most important organic processes, the operations to be observed are too minute ever to be seen and too complex ever to be calculated. It is no imperfection in our instruments which here foils us. It is an incurable imperfection in ourselves. Our senses are very few and very imperfect. They were not, unfortunately, evolved for purposes of research. And though we may well stand amazed at the immense scientific structure which Mankind have been able to raise on the meagre foundations afforded by their feeble sense-per-

ceptions, we can hardly hope to see it added to without limit. Nor is the time necessarily as far distant as we sometimes think, when we may be reduced either to elaborating the details of that which in outline is known already, or to framing dim conjectures about that which cannot scientifically be known at all.

387. How different has been the political history, and yet how similar is the social condition, of Great Britain, France, Germany, Holland, and Belgium. Though these five nations do not for the most part speak the same language, nor profess the same religion, nor claim the same ancestry ; though the events by which they have been moulded, and the institutions by which they have been governed, are apparently widely dissimilar ; yet their culture is at this moment practically identical, their ideas form a common stock ; the social questions they have to face are the same, and such differences as exist in the material condition and well-being of their populations are unquestionably due more to the economic differences in their position, climate, and natural advantages, than to the decisions at which they may have from time to time arrived on the various political controversies by which their peoples have been so bitterly divided. We cannot, of course, conclude from this that political action or inaction has no effect upon the broad stream of human progress ; still less that it may not largely determine for good or for evil the course of its smaller eddies and subsidiary currents. All that we are warranted in saying is that, as a matter of fact, the differences in the political history of these five communities, however interesting to the historian, nay, however important at the moment to the happiness of the populations concerned, are, if estimated by the scale we are at this moment applying to human affairs, almost negligible ; and that it must be in connection with the points wherein their political systems agree that the importance of those systems is principally to be found.

388. The great political movements with which the historian chiefly concerns himself, must be regarded as symptoms, rather than as causes, of the vital changes which have taken place.

389. Legal equality has no necessary connection with political equivalence, and the most cursory observations, not of con-

stitutional forms, but of the realities of life, show that organisation is the inevitable accompaniment of electoral institutions, and that organisation, from the very nature of the case, is absolutely incompatible with uniformity.

390. But though it may well seem doubtful whether a complete science of politics (and *a fortiori* of sociology) will ever exist, it is quite certain that if it ever does exist it must be confined to a small body of experts. Is there the slightest probability that in their hands it could ever produce the practical results which many persons hope for? It may be doubted. An acquaintance with the laws of nature does not always, nor even commonly, carry with it the means of controlling them. Knowledge is seldom power. And a sociologist so coldly independent of the social forces among which he lived as thoroughly to understand them, would, in all probability, be as impotent to guide the evolution of a community as an astronomer to modify the orbit of a comet.

391. Movement, whether of progress or of retrogression, can commonly be brought about only when the sentiments opposing it have been designedly weakened or have suffered a natural decay. In this destructive process, and in any constructive process by which it may be followed, reasoning, often very bad reasoning, bears, at least in Western communities, a large share as cause, a still larger share as symptom; so that the clatter of contending argumentation is often the most striking accompaniment of interesting social changes. Its position, therefore, and its functions in the social organism, are frequently misunderstood. People fall instinctively into the habit of supposing that, as it plays a conspicuous part in the improvement or deterioration of human institutions, it therefore supplies the very basis on which they may be made to rest, the very mould to which they ought to conform; and they naturally conclude that we have only got to reason more and to reason better in order speedily to perfect the whole machinery by which human felicity is to be secured.

Surely this is a great delusion. A community founded upon argument would soon be a community no longer. It would dissolve into its constituent elements. Think of the thousand ties most subtly woven out of common sentiments, common tastes, common beliefs, nay, common prejudices, by which from our very earliest

childhood we are all bound unconsciously but indissolubly together into a compacted whole. Imagine these to be suddenly loosed and their places taken by some judicious piece of reasoning on the balance of advantage, which, after making all proper deductions, still remains to the credit of social life. Imagine nicely adjusting our loyalty and our patriotism to the standard of a calculated utility. Imagine us severally suspending our adhesion to the Ten Commandments until we have leisure and opportunity to decide between the rival and inconsistent philosophies which contend for the honour of establishing them ! These things we may indeed imagine if we please. Fortunately, we shall never see them. Society is founded—and from the nature of the human beings which constitute it, must, in the main, be always founded—not upon criticism but upon feelings and beliefs, and upon the customs and codes by which feelings and beliefs are, as it were, fixed and rendered stable. And even where these harmonise so far as we can judge with sound reason, they are in many cases not consciously based on reasoning ; nor is their fate necessarily bound up with that of the extremely indifferent arguments by which, from time to time, philosophers, politicians, and I will add divines, have thought fit to support them.

This view may, perhaps, be readily accepted in reference, for instance, to Oriental civilisation ; but to some it may seem paradoxical when applied to the free constitutions of the West. Yet, after all, it supplies the only possible justification, I will not say for democratic government only, but for any government whatever based on public opinion. If the business of such a government was to deal with the essential framework of society as an engineer deals with the wood and iron out of which he constructs a bridge, it would be as idiotic to govern by household suffrage as to design the Forth Bridge by household suffrage. Indeed, it would be much more idiotic, because, as we have seen, sociology is far more difficult than engineering. But, in truth, there is no resemblance between the two cases. We habitually talk as if a self-governing or free community was one which managed its own affairs. In strictness, no community manages its own affairs, or by any possibility could manage them. It manages but a narrow fringe of its affairs, and that in the main by deputy. It is only the thinnest surface layer of law and custom, belief and sentiment, which can either be successfully subjected to destructive treatment, or become the nucleus of any new growth—a fact which explains the apparent paradox that

so many of our most famous advances in political wisdom are nothing more than the formal recognition of our political impotence.

392. It is quite possible to conceive an absolute government with a taste for social experiments. It is quite possible, though not so easy, to conceive a popular government in which the strength of custom and tradition shall have been seriously weakened by criticism or other causes, and where the sentiments which usually support what *is*, begin, by a kind of inverted conservatism, to nourish and give strength to some ideal of what *ought to be*. Communities so situated are in a condition of unstable equilibrium. They are in danger of far-reaching changes. It is not asserted that the result of such changes must be unsuccessful, only that it is beyond our powers of calculation. The new condition of things would be a political parallel to what breeders and biologists call in natural history a 'sport'. Such 'sports' do not often survive; still less often do they flourish and multiply. It can only be by a rare and happy accident that either in the social or the physical world they constitute a stable and permanent variety.

393. Persecution is only an attempt to do that overtly and with violence which the community is, in self-defence, perpetually doing unconsciously and in silence. In many societies variation of belief is practically impossible. In other societies it is permitted only along certain definite lines. In no society that has ever existed, or could be conceived as existing, are opinions equally free (in the *scientific* sense of the term, not the *legal*) to develop themselves indifferently in all directions. The constant pressure of custom; the effects of imitation, of education, and of habit; the incalculable influence of man on man, produce a working uniformity of conviction more effectually than the gallows and the stake, though without the cruelty, and with far more than the wisdom that have usually been vouchsafed to official persecutors. Though the production of such a community of ideas as is necessary to make possible community of life, the encouragement of useful novelties, the destruction of dangerous eccentricities, are thus among the undertakings which, according to modern notions, the State dare scarcely touch, or touches not at all, this is not because these things are unimportant,

but because, though among the most important of our affairs, we no longer think we can manage them.

It would seem, then, that in all States, and not least in those which are loosely described as self-governing, the governmental action which can ever be truly described as the conscious application of appropriate means to the attainment of fully-comprehended ends, must, in comparison with the totality of causes affecting the development of the community, be extremely insignificant in amount.

394. As our expectations of limitless progress for the race cannot depend upon the blind operation of the laws of heredity, so neither can they depend upon the deliberate action of national governments. Such examination as we can make of the changes which have taken place during the relatively minute fraction of history with respect to which we have fairly full information, shows that they have been caused by a multitude of variations, often extremely small, made in their surroundings by individuals whose objects, though not necessarily selfish, have often had no intentional reference to the advancement of the community at large. But we have no scientific ground for suspecting that the stimulus to these individual efforts must necessarily continue; we know of no law by which, if they do continue, they must needs be co-ordinated for a common purpose or pressed into the service of the common good. We cannot estimate their remoter consequences; neither can we tell how they will act and re-act upon one another, nor how they will in the long run affect morality, religion, and other fundamental elements of human society. The future of the race is thus encompassed with darkness: no faculty of calculation that we possess, no instrument that we are likely to invent, will enable us to map out its course, or penetrate the secret of its destiny. It is easy, no doubt, to find in the clouds which obscure our path what shapes we please: to see in them the promise of some millennial paradise, or the threat of endless and unmeaning travel through waste and perilous places. But in such visions the wise man will put but little confidence: content, in a sober and cautious spirit, with a full consciousness of his feeble powers of foresight, and the narrow limits of his activity, to deal as they arise with the problems of his own generation.

395. It is true that, as I think, there is nothing in what we

know of the earthly prospects of humanity fitted fully to satisfy human aspirations. It is true that, as I think, much optimistic speculation about the future is quite unworthy the consideration of serious men. It is true that, as I think, the light-hearted manner in which many persons sketch out their ideas of a reconstructed society exhibits an almost comic ignorance of our limited powers of political calculation.

But I do not believe that these opinions are likely, either in reason or in fact, to weaken the springs of human effort. The best efforts of mankind have never been founded upon the belief in an assured progress towards a terrestrial millennium : if for no other reason because the belief itself is quite modern. Patriotism and public zeal have not in the past, and do not now, require any such aliment. True we do not know, as our fathers before us have not known, the hidden laws by which in any State the private virtues of its citizens, their love of knowledge, the energy and disinterestedness of their civic life, their reverence for the past, their caution, their capacity for safely working free institutions, may be maintained and fostered. But we *do* know that no State where these qualities have flourished has ever perished from internal decay ; and we also know that it is within our power, each of us in his own sphere, to practise them ourselves, and to encourage them in others. As men of action, we want no more than this. Of this no speculation can deprive us. And I doubt whether any of us will be less fitted to face with a wise and cheerful courage the problems of our age and country, if reflection should induce us to rate somewhat lower than is at present fashionable, either the splendours of our future destiny, or the facility with which these splendours may be attained.

396. I now have the honour of addressing a great international assembly. Learning is represented in this room from every country boasting Western civilisation, and in this we are carrying on, after all, the traditions of the great mediæval Universities. The mediæval Universities were an absolutely new product, owing nothing, so far as I am aware, to ancient tradition, to ancient organisation, to ancient methods of organisation ; and, from the beginning, they were international in their character. Learning was welcomed from every country in the world, every country that could attend irrespective of national jealousies, irrespective even of national hostilities. In the thirteenth century, as in the fourteenth, as in the fifteenth, when this University was established, the fact that a student

even belonged to a hostile country was regarded as being no bar to his having all the advantages which a University could give. There is something, I think, splendid in this idea of a great international task to be carried on, in which all the nations of the world are equally interested, in which all sections of humanity, to whatever race they may belong, whatever religion they may profess, are all equally concerned; and nothing could illustrate the greatness of this truth, or the nobility of that cause than such an assembly as I now see before me. I hope, and I believe, that, as this common consciousness of a great intellectual task comes more and more home to the peoples of Europe, it will become more and more impossible for them to find themselves divided upon other questions, and that when the next 500 years pass over this University and when the Lord Rector of that day has to follow in the steps of my noble friend on my right (Lord Rosebery), it will regard international warfare and will speak of international warfare with the same disgust, with the same moral disdain, with which Lord Rosebery speaks of mediæval Scotland.

What of those 500 years which are to come as compared with the 500 years which are past? It is very difficult to keep our ideals of temporal perspective in due proportion. I do not venture to prophesy; in fact I believe that the only prophecy that any self-respecting prophet would venture to make with regard to the coming period—the only prophecy as distinguished from the hope which might be expressed—is of a rather unpleasant kind, namely, that the material resources of the world will by that time, so far as we can judge, have not only diminished materially, but, in many parts of the world, not excluding these islands, some of the most important will be exhausted. Just consider how difficult it is to keep this proportion in mind. I have the great honour to be Chancellor of Edinburgh University. We regard Edinburgh University as the younger sister of St. Andrew's—after all not so very much younger; but the period that elapsed between the foundation of this University and the foundation of Edinburgh University, that period repeated from the present moment will see our coal supplies of these islands exhausted.

Let me turn from that which is not a pleasant reflection to another aspect, perhaps more nearly associated with academic life. What hopes—I venture on no prophecies now—what hopes may we have of the growth of learning? And here I should like, and I venture to strike a more cheerful note. I do not believe that we realise the magnitude of the growth of knowledge that has yet taken place in the three generations, in the sixty or ninety years drawing to a conclusion. I do not think we realise how great is that growth compared with previous periods. Our whole view of the world has been revolutionised in that time—our whole view of history, our whole view of science, our whole conception of the material world, our whole knowledge of the growth of progress, of the development of mankind, and of the organic world of which man is but a part. Are we going—can

we hope to go—at the same rate of progress during the next 500 years that has marked the growth of knowledge in the last thirty, sixty, or ninety years? If we can make any such prophecy, if we can entertain any such hope, what will be the position of our great-great-grandchildren, our remote descendants? How far will they have got on beyond the point which we with difficulty, with labour, but, surely, not without success, have been able to reach at the present time? Will they look back on us not merely in the way that we are justified in looking back to the great men of the Middle Ages? Will they feel progress has been as rapid as it has recently been? The difference between our knowledge and their knowledge in 500 years' time will be incomparably greater, without powers of measurement, greater than the difference that separates us from the great schoolmen of the thirteenth, fourteenth, and fifteenth centuries. I hope it may be so.

I hope that our knowledge of nature and that our conquests over nature will go on at the same rate of growth as they have gone on in the years which are remembered by many of those whom I am addressing; and if that expectation be carried out, then it is impossible for us to form the slightest conjecture of what the world will be 100 years or 150 or 200 years hence. Whether these hopes are destined to fulfilment or whether after a great outburst of physical discovery which has, I believe, exceptionally characterised recent years, whether after that there is to be a pause, a set-back, a period of quiescence, no man can tell. But after all, knowledge breeds knowledge, and the more you pursue your way into the secrets of nature, the more instruments are at your command for making yet further advances; and I see no reason to doubt that unless mankind mismanages its affairs in the grossest and most scandalous fashion, our descendants will be able to look back upon us as merely beginners and pioneers in the great field of discovery which is open to mankind. . . . [1911.]

Psychical Research.

[*The extracts under this heading are taken from the Presidential Address to the Society for Psychical Research, 1894.*]

397. We have lost another distinguished member of our body—not in this case one who was associated very closely with our work, but one, nevertheless, who by the lustre of his name added dignity to our proceedings, and who might, had his life been spared, have largely helped us, I believe, in experimental investigations—I allude to Professor Hertz, a corresponding member of our body. As those of you will know who have had the opportunity of following recent developments of physical science, he was the fortunate individual who demonstrated experimentally the identity of light and of certain electro-magnetic phenomena. This identity had been divined, and elaborated on the side of theory, by one of the greatest of English, I ought perhaps to say of Scotch, men of science, Clerk Maxwell, but it had never been conclusively proved until Professor Hertz, about five years ago, startled Europe by the experimental identification of these physical forces. The extraordinary interest and the far-reaching importance of a discovery like this will not perhaps be appreciated by every one of my audience, but all of those who take an interest in such subjects will see that by this stroke of experimental genius a very large stride has been made towards establishing the unity of the great physical powers of nature.

The mention of a great physical discovery like this, made by one of our own body, naturally suggests reflections as to our actual scientific position. What, we feel tempted to ask, is at the present time the relation of such results as we have arrived at to the general view which hitherto science has taken of that material universe in which we live? I must confess that, when I call to mind the history of these relations in the past, the record is not one on which we can dwell with any great satisfaction. Consider, for example, the attitude maintained by the great body of scientific opinion, whether medical or physical, towards the phenomena which used to be known as mesmeric, but which have now been re-baptised, with Braid's term, as hypnotic.

398. There were, I believe, no less than two or three Commissions of inquiry—three, I think,—instituted in France alone, one in Mesmer's life-

time, and the other two, unless my memory deceives me, after his death. The amount of evidence collected, at all events by one of those Commissions, composed of some of the most eminent scientific men in France, should have been enough to call the attention of all Europe to the new problems thus raised. The report which embodied this evidence was, nevertheless, allowed to lie unnoticed upon the shelf; and it has only been by a gradual process of re-discovery, a constant and up-hill fight on the part of the less prejudiced members of the community, that the truths of hypnotism, as far as they are yet attained, have reached something like general recognition; even now, perhaps, their full importance—whether from a therapeutic or a psychological point of view—has not been sufficiently acknowledged.

What I have just very briefly and rudely sketched out to you is the history of an investigation into one small section of these alleged phenomena which fall outside the ordinary field of scientific investigation. If we took it by itself we should say that scientific men have shown in connection with it a bigoted intolerance, an indifference to strictly scientific evidence, which is, on the face of it, discreditable. I, however, do not feel inclined to pass any verdict of so harsh a character upon the action of the great body of scientific men. I believe that, although the course they pursued was not one which it is very easy rationally to justify, nevertheless there was a great deal more of practical wisdom in it than might appear at first sight. I have always been impressed by the lesson taught us by the general course of history, that you cannot expect, either of any single nation or of any single age, that it will do more than the special work which happens, so to speak, to be set before it at the moment. You cannot expect men, being what they are, to labour effectively in more than one relatively restricted field at the same time; and if they insist on diffusing their energies over too wide a surface, the necessary result, as I believe, will be that their labours will prove unfruitful. Now just consider what it is that men of science have done in the century which has elapsed since the first French Commission investigated Mesmer's discoveries. I do not believe it would be going too far to say that the whole body of the sciences, with the exception of mechanics, especially mechanics as applied to celestial motions—that the whole body of the sciences outside that limited sphere has been reconstructed from top to bottom. Our leading ideas in chemistry, our leading ideas in physics, the theory of light, the theory of sound, the whole of geology, the great generalisation known as the conservation of energy, and all the speculations and extensions which have succeeded that great generalisation, the whole theory of natural selection and of biological evolution, are all the birth of the hundred years which have elapsed since first Mesmer made hypnotic phenomena notorious through Europe. I think if scientific men, looking back upon the past, choose to set up for themselves this defence, that after all only one thing can be done at a time, that they were occupied in co-ordinating within certain lines the ex-

perimental data then available, and that, in harmony with a given conception of the material world, they were laying deep the foundations of that vast and imposing fabric of modern science, I for one should accept the plea as a bar to further proceedings. For the men who did that work could not have done it, I believe, unless they had rigidly confined themselves to one particular conception of the world with which they had to deal. If they had insisted on including in their survey not merely the well-travelled regions of everyday experience, but the dark and doubtful territories within which our labours lie, their work would have been worse, not better ; less, not more complete. They may have been narrow ; but their narrowness has been our gain. They may have been prejudiced ; but their prejudices have been fruitful, and we have reaped the harvest. I have often thought that when, on looking back over the history of human speculation, we find some individual who has anticipated the discoveries of a later age, but has neither himself been able to develop those discoveries nor yet to interest his contemporaries in them, we are very apt to bestow on him an undue meed of honour. 'Here,' we say, 'was a man before his time. Here was a man of whom his age was not worthy.' Yet such men do very little indeed for the progress of the world of which at first sight they would appear to be among the most distinguished citizens. There is no use in being before your age after such a fashion as this. If neither you nor those to whom you speak can make use of the message that you thus prematurely deliver, so far as the development of the world is concerned, you might as well have not lived at all. When, therefore, we are asked to put our hands in our pockets and subscribe towards the erection of memorials to half-forgotten worthies like these, by all means let us do it. It is natural and even praiseworthy. But do not let us suppose that those whom we thus honour really stand out among the benefactors of our species. They are interesting ; but hardly useful.

This, however, is merely a parenthetical reflection, to which I do not ask your agreement, and which, after all, has nothing to do with the general drift of the argument that I desire to lay before you. The question I now wish you to consider is : Granting to men of science that they had, if not a theoretical and speculative excuse, still a practical justification, for the course they have adopted in regard to these obscure psychical phenomena during the last hundred years, is that justification still valid ? For myself, I think it is not. I think the time has now come when it is desirable in their own interests, and in our interests, that the leaders of scientific thought in this country and elsewhere should recognise that there are well-attested facts which, though they do not easily fit into the framework of the sciences, or of organised experience as they conceive it, yet require investigation and explanation, and which it is the bounden duty of science, if not itself to investigate, at all events to assist us in investigating.

I am, of course, aware that there are necessarily connected with our work difficulties and obstructions in the way of experiment with which

scientific men are not familiar, and which not unnaturally rouse in their minds both dislike and suspicion. To begin with, there is the difficulty of fraud. The ordinary scientific man no doubt finds the path of experimental investigation strewn with difficulties, but at least he does not usually find among them the difficulty presented by human fraud. He knows that, if he is misled in any particular, it is the fault of the observer, and not the fault of the observed. He knows that, if his cross-examination of nature fails to elicit anything, it is because he has not known how to cross-examine, not because nature when put in the witness-box tells untruths. But unfortunately in the matters with which we have to deal this is not the case. We have come across, and it is inevitable that we should come across, cases where either deliberate fraud or unconscious deception makes observation doubly and trebly difficult, and throws obstacles in the way of the investigator which his happier brother in the region of material and physical science has not to contend with.

And there is yet another difficulty in our work from which those who cultivate physical science are happily free. They have, as the ultimate sources of their knowledge, the 'five senses' with which we are all endowed, and which are the only generally recognised inlets through which the truth of external nature can penetrate into consciousness. But we of this Society have perforce to deal with cases in which not merely the normal five or six senses, but some abnormal and half-completed sense, so to speak, comes into play; in which we have to work, not with the organisations of an ordinary and normal type, but with certain exceptional organisations who can neither explain, account for, nor control the abnormal powers they appear to possess.

This is not only a special difficulty with which we have to contend; it is the basis of a serious objection, in the eyes of many scientific men, to the admission of the subject-matter of our researches into the sphere of legitimate investigation. These critics seem to think that because we cannot repeat and verify our experiments as we will and when we will—because we cannot, as it were, put our phenomena in a retort and boil them over a spirit lamp and always get the same results—that therefore the phenomena themselves are not worth examining. But this is, I venture to say, a very unphilosophic view of the question. Is there, after all, any inherent *a priori* improbability in there being these half-formed and imperfectly developed senses, or inlets of external information, occasionally and sporadically developed in certain members of the human race? Surely not. I should myself be disposed to say that if the theory of development be really sound, phenomena like these, however strange, are exactly what we should have expected. For what says the theory of natural selection? Why this, among other things: that there has gradually been elaborated by the slaughter of the unfit and the survival of the fit, an organism possessed of senses adapted to further its success in the struggle for existence. To suppose that the senses elaborated in obedience to this law should be

in correspondence with the whole of external nature, appears to me to be not only improbable, but, on any rational doctrine of probability, absolutely impossible. There must be countless forms of being, countless real existences which, had the line of an evolution gone in a different direction, or had the necessities of our primitive ancestors been of a different kind, would have made themselves known to us through senses the very character of which we are at present unable to imagine. And, if this be so, is it not in itself likely that here and there we should come across rudimentary beginnings of such senses; beginnings never developed and probably never to be developed by the operation of selection; mere by-products of the great evolutionary machine, never destined to be turned to any useful account? And it may be—I am only hazarding an unverifiable guess—it may be, I say, that in these cases of the individuals thus abnormally endowed we really have come across faculties which, had it been worth Nature's while, had they been of any value or purpose in the struggle for existence, might have been normally developed, and thus become the common possession of the whole human race. Had this occurred, we should have been enabled to experiment upon phenomena, which we now regard as occult and mysterious, with the same confidence in the sources of our information that we now enjoy in any of our ordinary inquiries into the laws of the material world. Well, if there be, as I think, no great antecedent improbability against there being these occasional and sporadic modifications of the organism, I do not think that men of science ought to show any distrustful impatience of the apparent irregularity of these abnormal phenomena, which is no doubt one of their most provoking characteristics.

But there is another and a real difficulty, from the point of view of science, attaching to the result of our investigations, which is not disposed of by the theory which I have suggested of imperfectly developed senses. Such senses, if they exist at all, may evidently be of two kinds, or may give us two kinds of experience. They may give us a kind of experience which shall be in perfect harmony with our existing conception of the physical universe, or they may give us one which harmonises with that conception imperfectly or not at all. As an example of the first I might revert to the discovery, previously referred to, of Professor Hertz. He, as I have already told you, has experimentally proved that electro-magnetic phenomena are identical, as physical phenomena, with ordinary light. Light consists, as you all know, of undulations of what is known as the luminiferous ether; well, electro-magnetic waves are also undulations of the same ether, differing from the undulations which we call light only in their length. Now it is easy to conceive that we might have had a sense which would have enabled us to perceive the long undulations in the same way as we now perceive the short ones. That would be a new sense, but, though new, its deliverances would have fitted in with the existing notions which scientific men have framed of the universe. But unfortunately in our special investiga-

tions we seem to come across experiences which are not so amenable. We apparently get hints of the existence of facts, which, if they be well established, as they appear to be, cannot, so far as I can judge, by any amount of squeezing or manipulation be made to fit into the interstices of our accepted view of the physical world; and, if that be so, then we are engaged in a work of prodigious difficulty indeed, but of an importance of which the difficulty is only a measure and an indicator. For we should then be actually on the threshold, so to speak, of a region ordered according to laws of which we have at present no cognisance, and which do not appear to harmonise—I do not say they are in contradiction to, but at least they do not appear to harmonise—with those which govern the regions already within our ken.

Let me dwell on this point a little more, as it is one of central interest to all who are engaged in our special investigations. What I am asserting is that the facts which we come across are very *odd* facts; and by that I do not mean merely queer and unexpected: I mean 'odd' in the sense that they are out of harmony with the accepted theories of the material world. They are not merely dramatically strange, they are not merely extraordinary and striking, but they are 'odd' in the sense that they will not easily fit in with the views which physicists and men of science generally give us of the universe in which we live.

In order to illustrate this distinction I will take a very simple instance. I suppose everybody would say that it would be an extraordinary circumstance if at no distant date this earth on which we dwell were to come into collision with some unknown body travelling through space, and, as the result of that collision, be resolved into the original gases of which it is composed. Yet, though it would be an extraordinary, and even an amazing, event, it is, after all, one of which no astronomer, I venture to say, would assert the impossibility. He would say, I suppose, that it was most unlikely, but that if it occurred it would not violate, or even modify, his general theories as to the laws which govern the movements of the celestial bodies. Our globe is a member of the solar system which is travelling I do not know how many miles a second in the direction of the constellation Hercules. There is no *a priori* ground for saying that in the course of that mysterious journey, of the cause of which we are perfectly ignorant, we shall not come across some body in interstellar space which will produce the uncomfortable results which I have ventured to indicate. And, as a matter of fact, in the course of the last two hundred years, astronomers have themselves been witness to stellar tragedies of incomparably greater magnitude than that which would be produced by the destruction of so insignificant a planet as the world in which we happen to be personally interested. We have seen stars which shine from an unknown distance, and are of unknown magnitude, burst into sudden conflagration, blaze brightly for a time, and then slowly die out again. What that phenomenon precisely indicates, of course, we cannot say, but it certainly indicates an

accident of a far more startling and tremendous kind than the shattering of our particular world, which to us would, doubtless, seem extraordinary enough.

This, then, is a specimen of what I mean by a dramatically extraordinary event. Now I will give you a case of what I mean by a scientifically extraordinary event, which as you will at once perceive may be one which at first sight, and to many observers, may appear almost common-place and familiar. I have constantly met people who will tell you, with no apparent consciousness that they are saying anything more out of the way than an observation about the weather, that by the exercise of their will they can make anybody at a little distance turn round and look at them. Now such a fact (if fact it be) is far more scientifically extraordinary than would be the destruction of this globe by some such celestial catastrophe as I have imagined. How profoundly mistaken, then, are they who think that this exercise of will-power, as they call it, is the most natural and most normal thing in the world, something that everybody would have expected, something which hardly deserves scientific notice or requires scientific explanation. In reality it is a profound mystery if it be true, or if anything like it be true; and no event, however startling, which easily finds its appropriate niche in the structure of the physical sciences ought to excite half so much intellectual curiosity as this dull, and at first sight common-place, phenomenon.

Now do not suppose that I want you to believe that every gentleman or lady who chooses to suppose him or herself exceptionally endowed with this so-called will-power is other than the dupe of an ill-regulated fancy. There is, however, quite apart from the testimony of such persons, a vast mass of evidence in favour of what we now call telepathy; and to telepathy the observations I have been making do in my opinion most strictly apply. For, consider! In every case of telepathy you have an example of action at a distance. Examples of real or apparent action at a distance are of course very common. Gravitation is such an example. We are not aware at the present time of any mechanism, if I may use the phrase, which can transmit gravitational influence from one gravitating body to another. Nevertheless, scientific men do not rest content with that view. I recollect it used to be maintained by the late Mr. John Mill that there was no ground for regarding with any special wonder the phenomenon of action at a distance. I do not dogmatise upon the point, but I do say emphatically that I do not think you will find a first-rate physicist who is prepared to admit that gravity is not a phenomenon which still wants an explanation. He is not ready, in other words, to accept action at a distance as an ultimate fact, though he has not even got the first clue to the real nature of the links by which the attracting bodies mutually act upon one another.

But though gravitation and telepathy are alike in this, that we are quite ignorant of the means by which in either case distant bodies influence

one another, it would be a great mistake to suppose that the two modes of operation are equally mysterious. In the case of telepathy there is not merely the difficulty of conjecturing the nature of the mechanism which operates between the agent and the patient, between the man who influences and the man who is influenced; but the whole character of the phenomena refuses to fit in with any of our accepted ideas as to the mode in which force may be exercised from one portion of space to another. Is this telepathy action an ordinary case of action from a centre of disturbance? Is it equally diffused in all directions? Is it like the light of a candle or the light of the sun which radiates equally into space in every direction at the same time? If it is, it must obey the law—at least, we should expect it to obey the law—of all other forces which so act through a non-absorbing medium, and its effects must diminish inversely as the square of the distance. It must, so to speak, get beaten out thinner and thinner the further it gets removed from its original source. But is this so? Is it even credible that the mere thoughts, or, if you please, the neural changes corresponding to these thoughts, of any individual could have in them the energy to produce sensible effects equally in all directions, for distances which do not, as far as our investigations go, appear to have any necessary limit? It is, I think, incredible; and in any case there is no evidence whatever that this equal diffusion actually takes place. The will-power, whenever will is used, or the thoughts, in cases where will is not used, have an effect, as a rule, only upon one or two individuals at most. There is no appearance of general diffusion. There is no indication of any disturbance equal at equal distances from its origin, and radiating from it alike in every direction.

But if we are to reject this idea, which is the first which ordinary analogies would suggest, what are we to put in its place? Are we to suppose that there is some means by which telepathic energy can be directed through space from the agent to the patient, from the man who influences to the man who is influenced? If we are to believe this, as apparently we must, we are face to face not only with a fact extraordinary in itself, but with a kind of fact which does not fit in with anything we know at present in the region either of physics or of physiology. It is true, no doubt, that we do know plenty of cases where energy is directed along a given line, like water in a pipe, or like electrical energy along the course of a wire. But then in such cases there is always some material guide existing between the two termini, between the place from which the energy comes and the place to which the energy goes. Is there any such material guide in the case of telepathy? It seems absolutely impossible. There is no sign of it. We cannot even form to ourselves any notion of its character, and yet, if we are to take what appears to be the obvious lesson of the observed facts, we are forced to the conclusion that in some shape or other it exists. For to suppose that the telepathic agent shoots out his influence towards a particular object, as you shoot a bullet out of a gun, or water out of a hose,

which appears to be the only other alternative, involves us seemingly in greater difficulties still. Here then we are face to face with what I call a scientifically extraordinary phenomenon, as distinguished from a dramatically extraordinary one.

399. If beyond the mere desire to increase knowledge many are animated by a wish to get evidence, not through any process of laborious deduction, but by direct observation, of the reality of intelligences not endowed with a physical organisation like our own, I see nothing in their action to criticise, much less to condemn. But while there is sufficient evidence, in my judgment, to justify all the labours of our Society in this field of research, it is not the field of research which lies closest to the ordinary subjects of scientific study, and, therefore, this afternoon, when I was led to deal rather with the scientific aspects of our work, I have deliberately kept myself within the range of the somewhat unpicturesque phenomena of telepathy. My object has been a very simple one, as I am desirous above all things of enlisting in our service the best experimental and scientific ability which we can command. I have thought it best to endeavour to arrest the attention, and, if possible, to engage the interest of men of science by pointing to the definite and very simple experiments which, simple as they are, yet hint at conclusions not easily to be accommodated with our habitual theories of things. If we can repeat these experiments sufficiently often and under tests sufficiently crucial to exclude the possibility of error, it will be impossible any longer to ignore them, and, willingly or unwillingly, all interested in science will be driven to help, as far as they can, to unravel the refractory class of problems which this Society is endeavouring to solve. What success such efforts will be crowned with, I know not. I have already indicated to you, at the beginning of my remarks, the special class of difficulties which beset our path. We have not at our command the appropriate physical senses, we have not the appropriate materials for experiment, we are hampered and embarrassed in every direction by credulity, by fraud, by prejudice. Nevertheless, if I rightly interpret the results which these many years of labour have forced upon the members of this Society and upon others not among our number who are associated by a similar spirit, it does seem to me that there is at least strong ground for supposing that outside the world, as we have, from the point of science, been in the habit of conceiving it, there does lie a region, not open indeed to experimental observation in the same way as the more familiar regions of the material world are open to it, but still with regard to which some experimental information may be laboriously gleaned ; and even if we cannot entertain any confident hope of discovering what laws these half-seen phenomena obey, at all events it will be some gain to have shown, not as a matter of speculation or conjecture, but as a matter of ascertained fact, that there are things in heaven and earth not hitherto dreamed of in our scientific philosophy.

Public-Speaking.

400. Lord Salvesen did not exaggerate in the least the extraordinary loss of influence and power which attaches to those persons whose business and occupation in life require them to address assemblies of their fellow-men, who have mastered the material that they want to put before them, but apparently are incapable of avoiding such odd habits as dropping their voice at the end of a sentence, thus making what they say practically inaudible, and have never taken even the smallest amount of pains which is required to enable the average voice to reach the average audience. I associate myself entirely with the advice of Lord Salvesen in that respect. I hope you will not misinterpret me in the sense of thinking yourselves advantaged in the attempt to study what I call the arts of elocution, methods of gesture, of raising or lowering the voice to show emotion, the things which are taught by professors of elocution, but which are not, believe me, practised by any successful person. After all, public-speaking is, or ought to be, conversation raised to a higher level; and the one fatal defect, believe me—for I have lived amongst speakers all my life—the only defect which is fatal is that when he speaks to you he should give you an appearance of artificiality. It is that which lies behind the objection to which Lord Salvesen alluded—the objection to speeches learned by heart. Lord Salvesen was perfectly right in saying that a subject properly learned by heart and properly delivered was the best of all speeches. No speech delivered impromptu could have the finish, the polish, the conciseness, the arrangement, which are the result of study, and which nothing but study can give. But the man who writes his speech, and then learns it, and then delivers it, so that every man knows he has written it—that man never will succeed as a speaker. I remember in one of Lord Brougham's letters reading an account which he himself gave of one of his own most successful pieces of oratory. He did not perhaps think he praised it, but the particular praise he gave himself on this occasion was to say part of his speech was impromptu, part was prepared and learned by heart, and the audience could not tell which was which. I do not know whether the praise was deserved, but it was very good praise. That shows that Lord Brougham was, what undoubtedly we all admit he was, a very great Parliamentary speaker; and even when he worked up particular passages of eloquence, of invective, to the highest points of which he was capable, he had the art of so delivering these to his audience that they did not see that

they were prepared. But they fitted without a hitch, without a false joint, into the general fabric of a debating discourse. And further I would say, as Lord Salvesen has told you, that there is a necessity for elocution ; but remember that while you are learning elocution you are learning it for the purpose of being able to be heard by the audience whom you want to persuade, to interest, or to amuse. Always have the audience and never yourself before your mind when you are making your speech. [1907.]

401. No man can really be regarded as master of his art unless he is capable of debating. In an assembly like the House of Commons, and I should suppose in a Law Court, the man who requires to retire and reflect, and write and learn by heart, before he can deal with the case presented by an opponent is a man whose capacity may be enormous, whose power of speech, whose command of eloquence, may be of the very highest order, but who cannot command them when wanted, who will therefore be perhaps surpassed in efficiency by some one of far smaller gifts than himself, provided those gifts are at command and can be used the moment they are desired. Therefore, I would recommend everybody to carry out the precepts which Lord Salvesen, himself a great master of the art, has so admirably put before you.

The two great qualifications which I would advise any struggling speaker to strive for are, in the first place, the art of getting in touch with his audience, and of forgetting himself in his desire to persuade and interest them ; and, in the second place, that readiness of resource and that command of language which, if it does not do justice, or some justice, to a great cause which more carefully prepared efforts can do, is nevertheless always at his command, and can be used at moments and on occasions when perhaps a more skilful orator is not ready, has not brought his guns into position, has not brought up his great columns, is incapable of marshalling his army to the full effect : the commander of smaller but readier and more mobile forces may thus find himself able to defeat battalions bigger than his own. These suggestions are not in any sense antagonistic to those which have been laid before you. The two gifts which I have suggested are, of course, worthless unless the speaker has got something to say, has got something which he has thought before, something which is not the mere casual inspiration of the moment, but which wells out naturally from a mind stored with reflections, and which has gone over in some form or another all the ground which he is travelling in his speech.

But whatever value my observations may have, they are at all events founded on a close observation and acquaintance with speakers of all types of opinion and oratory. I have listened to men who could hardly put two sentences grammatically together, but who held the House of Commons because they persuaded the House of Commons by their personal magnetism and by their manner of speech that they knew what they were talking about.

I have heard men like Mr. Gladstone and Mr. Bright—masters of their time—Mr. Gladstone above all the master of every skilful resource the orator could have at his disposal, and of whom I can only say I regret his speeches are of a kind that make it impossible for those who read them in any sense to judge of their excellence. Posterity must take it from us who heard with our own ears the extraordinary gifts of pathos, humour, invective, detailed exposition, of holding the audiences and interesting them in the most intricate and dry matters of administrative and financial detail: they must take it from us that these speeches had all these qualities. If you go and take down a volume of his speeches and read them, you will not believe what I tell you; but I am telling you the truth. It is not the speeches which read best which are the greatest speeches. I am not qualified to speak of Demosthenes and Cicero. But, at all events, of the eloquence which has held spellbound the assemblies of which I have been a member, I can truly say posterity cannot possibly judge of their merits by a mere study of the words used. They must see the man, feel the magnetism of his presence, see his gestures, the flash of his eyes. Then, and then only, will they feel what the real essential is between public-speaking on the one hand, and even the most admirable and eloquent writing on the other. I do not say which is best. I personally put the writing far above the speaking. I should tell you the test of a speaker is the audience he addresses. There is no other judge: there is no appeal from that Court. And if you judge of the verdict that Court has given on the orators of our day, I would certainly put Mr. Gladstone far above those to whom it has been my good fortune to listen. . . . [1907.]

Reading.

[See also "LITERATURE" and "NOVELS".]

402. The other object and end of education besides the augmentation of learning is the augmentation of enjoyment, and I am sure that this is a point of view too constantly lost sight of by those who take advantage of the merits of education. My own wonder is, if we took real evidence as to the advantages to the mass of the population of learning to read, what answer we should get. Of course, reading is a necessary means of carrying on business. What beyond that is the chief advantage that the masses of our fellow-creatures get by learning to read? I believe it is this: the first, and I think the least important, matter is the advantage of reading the newspapers. The other, and the most important, is the advantage of reading that species of literature which is commonly described as frivolous. You hear people denounce light reading, novels, travels, and books of adventure, and the like, and mourn that more serious use is not made of the opportunities which have been given them. And we are inundated with lists of a hundred books on which it is supposed the human race is henceforth, or for a certain time, to satisfy its intellectual habits. I myself have a shrewd suspicion that some of those literary gentlemen who have promulgated those lists of a hundred books are not themselves in the habit after a hard day's work of going home and reading "Æschylus" or "Paradise Lost," and that when it comes to the point they will be found taking up the last three-volume novel; and I am not at all sure that after a hard day's work they could be better employed. I think the kind of contempt which is poured upon the ordinary daily food on which people satisfy their literary appetite is most misplaced. . . . [1886.]

403. Books are far more independent of place, of time, and of surrounding circumstances than are the masterpieces of pictorial art. It is no doubt the case that your true bibliophile has a taste for rare editions and precious bindings which cannot be satisfied in a public library. His taste, I admit, cannot be made general or popular; but I entertain very grave doubts whether the collection of a book collector ever gives much satisfaction except to its possessor. We may all enjoy—I am speaking of course of collections of rare and unique editions, and of precious bindings

by old masters in the art of binding—we may all enjoy other people's parks, other people's pictures, and other people's houses—very often, I think, we enjoy them more than their actual possessors, but I have never heard of a case, nor do I believe such a case exists, in which one book collector thoroughly enjoys the collection of another book collector. If he does derive satisfaction from it, I think it is rather because he comes to contemplate that his friend may die, or be ruined, that his collection may come to the hammer, and that he may ultimately become the possessor of one or two of these coveted treasures.

But putting aside the special taste for rare books, I think that libraries like the one in which I am now speaking do appeal, and may appeal, to the tastes of the whole community. They are not limited, and ought not to be limited, to a few. One advantage of education is that every man, woman, and child in the country ought to be able to read; and to any one who can read there are open treasures of enjoyment and satisfaction which probably no other source of pleasure, be it artistic or whatever else you please, is able to confer. A great French writer once stated that he had never in his life undergone any personal trouble or affliction the thought of which he could not dissipate by half an hour's reading. I cannot promise the inhabitants of Hertford that their cares and troubles will, as doctors say, so quickly yield to treatment as that; and I entertain a suspicion that the French author I have alluded to either exaggerated in the passage, or else that his troubles were far lighter than those which ordinarily fall to the lot of humanity. Nevertheless, make what allowance we please for his opinion, the truth still remains, and will be testified to by every man who has acquired a taste for reading, that no more sovereign specific exists for dissipating the petty cares and troubles of life. And if we acquire—and recollect it is not an art easy of itself to acquire—but if we once acquire a universal curiosity into the history of mankind, into the constitution of the material universe in which we live, into the various phases of human activity, into the thoughts and beliefs by which men now long dead have been actuated in the past—if we once acquire this general and universal curiosity, we shall possess, I will not say a specific against sorrow, but certainly a specific against boredom. We obtain a power of putting our own small troubles and our own small cares in their proper place. We are able to see the history of mankind in something like its true perspective; and we not only gain the power of diverting our thoughts from the small annoyances of the hour, but we gain further the inestimable gift of seeing how small, compared with the general sum of human interests, of human sufferings, and of human joys, are the insignificant troubles which may happen to each individual one of us. Now, this is no small advantage to be gained from the habit of reading; but the habit of reading cannot be acquired by anybody who has not ready access to books, and ready access to many books, because the habit is of itself a habit of general curiosity, a habit of drawing your literary pleasure from no

small or narrow source, a habit of spreading your interest over the whole interests which have ever influenced mankind so far as we can make ourselves acquainted with them ; and thus it is that the small collection of books which a poor man is able to acquire for himself is not enough to meet the needs of the case. Therefore it is that I hail with satisfaction the establishment in this and other towns of Free Libraries like that which I see around us. [1889.]

[The remaining extracts are taken from the Address to St. Andrew's University, December, 1887, delivered by Mr. Balfour when Lord Rector.]

404. Yet I am convinced that, for most persons, the views thus laid down by Mr. Harrison are wrong, and that what he describes, with characteristic vigour, as "an impotent voracity for desultory information" is in reality a most desirable, and a not too common form of mental appetite. I have no sympathy whatever with the horror he expresses at the "incessant accumulation of fresh books". I am never tempted to regret that Gutenberg was born into the world. I care not at all though the "cataract of printed stuff," as Mr. Harrison calls it, should flow and still flow on until the catalogues of our libraries should make libraries themselves. I am prepared indeed, to express sympathy almost amounting to approbation for anyone who would check all writing which was *not* intended for the printer. I pay no tribute of grateful admiration to those who have oppressed mankind with the dubious blessing of the penny post. But the ground of the distinction is plain. We are always obliged to read our letters, and are sometimes obliged to answer them. But who obliges us to wade through the piled-up lumber of an ancient library, or to skim more than we like off the frothy foolishness poured forth in ceaseless streams by our circulating libraries? Dead dunces do not importune us ; Grub Street does not ask for a reply by return of post. Even their living successors need hurt no one who possesses the very moderate degree of social courage required to make the admission that he has not read the last new novel or the current number of a fashionable magazine.

405. I have often heard of the individual whose excellent natural gifts have been so overloaded with huge masses of undigested

and indigestible learning that they have had no chance of healthy development. But though I have often heard of this personage, I have never met him, and I believe him to be mythical. It is true, no doubt, that many learned people are dull : but there is no indication whatever that they are dull because they are learned. True dullness is seldom acquired ; it is a natural grace, the manifestations of which, however modified by education, remain in substance the same. Fill a dull man to the brim with knowledge, and he will not become less dull, as the enthusiasts for education vainly imagine ; but neither will he become duller, as Mr. Harrison appears to suppose. He will remain in essence what he always has been and always must have been. But whereas his dullness would, if left to itself, have been merely vacuous, it may have become, under careful cultivation, pretentious and pedantic.

I would further point out that, while there is no ground in experience for supposing that a keen interest in those facts which Mr. Harrison describes as "merely curious," has any stupefying effect upon the mind, or has any tendency to render it insensible to the higher things of literature and art, there is positive evidence that many of those who have most deeply felt the charm of these higher things have been consumed by that omnivorous appetite for knowledge which excites Mr. Harrison's especial indignation. Dr. Johnson, for instance, though deaf to some of the most delicate harmonies of verse, was, without question, a very great critic. Yet, in Dr. Johnson's opinion, literary history, which is for the most part composed of facts which Mr. Harrison would regard as insignificant, about authors whom he would regard as pernicious, was the most delightful of studies. Again, consider the case of Lord Macaulay. Lord Macaulay did everything Mr. Harrison says he ought not to have done. From youth to age he was continuously occupied in 'gorging and enfeebling' his intellect, by the unlimited consumption of every species of literature, from the masterpieces of the age of Pericles, to the latest rubbish from the circulating library. It is not told of him that his intellect suffered by the process ; and, though it will hardly be claimed for him that he was a great critic, none will deny that he possessed the keenest susceptibilities for literary excellence in many languages and in every form.

406. Wherever what may be called 'historic sympathy' is required there will be some diminution of the enjoyment which those

must have felt who were the poet's contemporaries. We look, so to speak, at the same splendid landscape as they, but distance has made it necessary for us to aid our natural vision with glasses, and some loss of light will thus inevitably be produced, and some inconvenience from the difficulty of truly adjusting the focus. Of all authors, Homer would, I suppose, be thought to suffer least from such drawbacks. But yet in order to listen to Homer's accents with the ears of an ancient Greek, we must be able, among other things, to enter into a view about the gods which is as far removed from what we should describe as religious sentiment as it is from the frigid ingenuity of those later poets who regarded the deities of Greek mythology as so many wheels in the supernatural machinery with which it pleased them to carry on the action of their pieces.

407. The pleasures of imagination derived from the best literary models, form without doubt the most exquisite portion of the enjoyment which we may extract from books ; but they do not in my opinion form the largest portion if we take into account mass as well as quality in our calculation. There is the literature which appeals to the imagination or the fancy, some stray specimens of which Mr. Harrison will permit us to peruse ; but is there not also the literature which satisfies the curiosity ? Is this vast storehouse of pleasure to be thrown hastily aside because many of the facts which it contains are alleged to be insignificant, because the appetite to which they minister is said to be morbid ? Consider a little. We are here dealing with one of the strongest intellectual impulses of rational beings. Animals, as a rule, trouble themselves but little about anything unless they want either to eat it or to run away with it. Interest in, and wonder at, the works of nature and the doings of man are products of civilisation, and excite emotions which do not diminish, but increase with increasing knowledge and cultivation. Feed them and they grow ; minister to them and they will greatly multiply. We hear much indeed of what is called 'idle curiosity,' but I am loth to brand any form of curiosity as necessarily idle. Take, for example, one of the most singular, but, in this age, one of the most universal, forms in which it is accustomed to manifest itself : I mean that of an exhaustive study of the contents of the morning and evening papers. It is certainly remarkable that any person who has nothing to get by it should destroy his eyesight and confuse his brain by a conscientious attempt to master the dull and

doubtful details of the European diary daily transmitted to us by 'Our Special Correspondent'. But it must be remembered that this is only a somewhat unprofitable exercise of that disinterested love of knowledge which moves men to penetrate the Polar snows, to build up systems of philosophy, or to explore the secrets of the remotest heavens. It has in it the rudiments of infinite and varied delights. It *can* be turned, and it *should* be turned, into a curiosity for which nothing that has been done, or thought, or suffered, or believed, no law which governs the world of matter or the world of mind, can be wholly alien or uninteresting.

Truly it is a subject for astonishment that, instead of expanding to the utmost the employment of this pleasure-giving faculty, so many persons should set themselves to work to limit its exercise by all kinds of arbitrary regulations.

408. And if it be true that the desire of knowledge for the sake of knowledge was the animating motive of the great men who first wrested her secrets from Nature, why should it not also be enough for us, to whom it is not given to discover, but only to learn, as best we may, what has been discovered by others?

409. But what is this 'little knowledge' which is supposed to be so dangerous? What is it 'little' in relation to? If in relation to what there is to know, then all human knowledge is little. If in relation to what actually is known by somebody, then we must condemn as 'dangerous' the knowledge which Archimedes possessed of Mechanics, or Copernicus of Astronomy; for a shilling primer and a few weeks' study will enable any student to outstrip in mere information some of the greatest teachers of the past. No doubt, that little knowledge which thinks itself to be great, may possibly be a dangerous, as it certainly is a most ridiculous, thing. We have all suffered under that eminently absurd individual who on the strength of one or two volumes, imperfectly apprehended by himself, and long discredited in the estimation of every one else, is prepared to supply you on the shortest notice with a dogmatic solution of every problem suggested by this 'unintelligible world'; or the political variety of the same pernicious genus, whose statecraft consists in the ready application to the most complex question of national interest of some high-sounding commonplace which has

done weary duty on a thousand platforms, and which even in its palmiest days was never fit for anything better than a peroration. But in our dislike of the individual do not let us mistake the diagnosis of his disease. He suffers not from ignorance but from stupidity. Give him learning and you make him not wise, but only more pretentious in his folly.

I say then that so far from a little knowledge being undesirable, a little knowledge is all that on most subjects any of us can hope to attain, and that, as a source not of worldly profit but of personal pleasure, it may be of incalculable value to its possessor. But it will naturally be asked, 'How are we to select from among the infinite number of things which may be known those which it is best worth while for us to know?' We are constantly being told to concern ourselves with learning what is important, and not to waste our energies upon what is insignificant. But what are the marks by which we shall recognise the important, and how is it to be distinguished from the insignificant? A precise and complete answer to this question which shall be true for all men cannot be given. I am considering knowledge, recollect, as it ministers to enjoyment, and from this point of view each unit of information is obviously of importance in proportion as it increases the general sum of enjoyment which we obtain, or expect to obtain, from knowledge. This, of course, makes it impossible to lay down precise rules which shall be an equally sure guide to all sorts and conditions of men; for in this, as in other matters, tastes must differ, and against real difference of taste there is no appeal. There is, however, one caution which it may be worth your while to keep in view—Do not be persuaded into applying any general proposition on this subject with a foolish impartiality to every kind of knowledge.

410. It is no doubt true that we are surrounded by advisers who tell us that all study of the past is barren except in so far as it enables us to determine the principles by which the evolution of human societies is governed. How far such an investigation has been up to the present time fruitful in results it would be unkind to inquire. That it will ever enable us to trace with accuracy the course which states and nations are destined to pursue in the future, or to account in detail for their history in the past, I do not in the least believe. We are borne along like travellers on some unex-

plored stream. We may know enough of the general configuration of the globe to be sure that we are making our way towards the ocean. We may know enough, by experience or theory, of the laws regulating the flow of liquids, to conjecture how the river will behave under the varying influences to which it may be subject. More than this we cannot know. It will depend largely upon causes which, in relation to any laws which we are ever likely to discover, may properly be called accidental, whether we are destined sluggishly to drift among fever-stricken swamps, to hurry down perilous rapids, or to glide gently through fair scenes of peaceful cultivation.

But leaving on one side ambitious sociological speculations, and even those more modest but hitherto more successful investigations into the causes which have in particular cases been principally operative in producing great political changes, there are still two modes in which we can derive what I may call 'spectacular' enjoyment from the study of history. There is first the pleasure which arises from the contemplation of some great historic drama, or some broad and well-marked phase of social development. The story of the rise, greatness, and decay of a nation is like some vast epic which contains as subsidiary episodes the varied stories of the rise, greatness, and decay of creeds, of parties, and of statesmen. The imagination is moved by the slow unrolling of this great picture of human mutability, as it is moved by the contrasting permanence of the abiding stars. The ceaseless conflict, the strange echoes of long-forgotten controversies, the confusion of purpose, the successes in which lay deep the seeds of future evils, the failures that ultimately divert the otherwise inevitable danger, the heroism which struggles to the last for a cause foredoomed to defeat, the wickedness which sides with right, and the wisdom which huzzas at the triumph of folly—fate, meanwhile, amidst this turmoil and perplexity, working silently towards the predestined end—all these form together a subject the contemplation of which need surely never weary.

411. What we are concerned to know as students of the philosophy of History is, not the character of each turn and eddy in the great social cataract, but the manner in which the currents of the upper stream drew surely in towards the final plunge, and slowly collected themselves after the catastrophe again to pursue, at a different level, their renewed and comparatively tranquil course.

Now if so much of the interest of the French Revolution depends

upon our minute knowledge of each passing incident, how much more necessary is such knowledge when we are dealing with the quiet nooks and corners of history ; when we are seeking an introduction, let us say, into the literary society of Johnson, or the fashionable society of Walpole. Society, dead or alive, can have no charm without intimacy, and no intimacy without interest in trifles, which I fear Mr. Harrison would describe as 'merely curious'. If we would feel at our ease in any company, if we wish to find humour in its jokes, and point in its repartees, we must know something of the beliefs and the prejudices of its various members, their loves and their hates, their hopes and their fears, their maladies, their marriages, and their flirtations. If these things are beneath our notice, we shall not be the less qualified to serve our queen and country, but need make no attempt to extract pleasure from one of the most delightful departments of literature.

412. The best method of guarding against the danger of reading what is useless is to read only what is interesting. A truth which will seem a paradox to a whole class of readers, fitting objects of our commiseration, who may be often recognised by their habit of asking some adviser for a list of books, and then marking out a scheme of study in the course of which all are to be conscientiously perused. These unfortunate persons apparently read a book principally with the object of getting to the end of it. They reach the word *Finis* with the same sensation of triumph as an Indian feels who strings a fresh scalp to his girdle. They are not happy unless they mark by some definite performance each step in the weary path of self-improvement. To begin a volume and not to finish it would be to deprive themselves of this satisfaction ; it would be to lose all the reward of their earlier self-denial by a lapse from virtue at the end. To skip, according to their literary code, is a species of cheating ; it is a mode of obtaining credit for erudition on false pretences ; a plan by which the advantages of learning are surreptitiously obtained by those who have not won them by honest toil. But all this is quite wrong. In matters literary, works have no saving efficacy. He has only half-learnt the art of reading who has not added to it the even more refined accomplishments of skipping and of skimming ; and the first step has hardly been taken in the direction of making literature a pleasure until interest in the subject, and not a desire to spare (so to speak) the author's feelings,

or to accomplish an appointed task, is the prevailing motive of the reader.

413. I am deliberately of opinion that it is the pleasures and not the profits, spiritual or temporal, of literature which most require to be preached in the ear of the ordinary reader. I hold, indeed, the faith that all such pleasures minister to the development of much that is best in man—mental and moral; but the charm is broken and the object lost if the remote consequence is consciously pursued to the exclusion of the immediate end. It will not, I suppose, be denied that the beauties of nature are at least as well qualified to minister to our higher needs as are the beauties of literature. Yet we do not say we are going to walk to the top of such and such a hill in order to drink in 'spiritual sustenance'. We say we are going to look at the view. And I am convinced that this, which is the natural and simple way of considering literature as well as nature, is also the true way. The habit of always requiring some reward for knowledge beyond the knowledge itself, be that reward some material prize or be it what is vaguely called self-improvement, is one with which I confess I have little sympathy, fostered though it is by the whole scheme of our modern education. Do not suppose that I desire the impossible. I would not, if I could, destroy the examination system. But there are times, I confess, when I feel tempted somewhat to vary the prayer of the poet, and to ask whether Heaven has not reserved in pity to this much educating generation some peaceful desert of literature as yet unclaimed by the crammer or the coach; where it might be possible for the student to wander, even perhaps to stray, at his own pleasure; without finding every beauty labelled, every difficulty engineered, every nook surveyed, and a professional cicerone standing at every corner to guide each succeeding traveller along the same well-worn round. If such a wish were granted I would further ask that the domain of knowledge thus 'neutralised' should be the literature of our own country. I grant to the full that the systematic study of *some* literature must be a principal element in the education of youth. But why should that literature be our own? Why should we brush off the bloom and freshness from the works to which Englishmen and Scotchmen most naturally turn for refreshment, namely, those written in their own language? Why should we associate them with the memory of hours spent in weary study; in the effort to remember for purposes

of examination what no human being would wish to remember for any other ; in the struggle to learn something, not because the learner desires to know it, but because he desires some one else to know that he knows it? This is the dark side of the examination system—a system necessary and therefore excellent, but one which does, through the very efficiency and thoroughness of the drill by which it imparts knowledge, to some extent impair the most delicate pleasures by which the acquisition of knowledge should be attended.

414. It is perfectly possible for a man, not a professed student, and who only gives to reading the leisure hours of a business life, to acquire such a general knowledge of the laws of nature and the facts of history that every great advance made in either department shall be to him both intelligible and interesting ; and he may besides have among his familiar friends many a departed worthy whose memory is embalmed in the pages of memoir or biography. All this is ours for the asking. All this we shall ask for if only it be our happy fortune to love for its own sake the beauty and the knowledge to be gathered from books. And if this be our fortune, the world may be kind or unkind, it may seem to us to be hastening on the wings of enlightenment and progress to an imminent millennium, or it may weigh us down with the sense of insoluble difficulty and irremediable wrong ; but whatever else it be, so long as we have good health and a good library, it can hardly be dull.

Science; AND Science and Theology.

[*Extracts 415 to 426 are taken from "A Defence of Philosophic Doubt" (published in 1879).*

Extracts 427 to 466 from "The Foundations of Belief" (published in 1895).

Extracts 468 and 469 from the Speech delivered to the Pan-Anglican Congress, London, 1908.]

415. Granting the reality of an external world, let us ask, in the first place, what is its real nature according to modern scientific teaching?

Speaking generally, it consists, we are told, of atoms possessing mass, chemical affinity, and other qualities; and of a universally diffused medium, called ether, which, by means of certain very singular properties, transmits through space certain vibrations by which these atoms are affected.

Associated together by various laws in various groups, these atoms constitute the solid, liquid, and gaseous bodies scattered through space; from among the infinite number of which there is to each man assigned one of especial importance to himself;—I mean his own organism. The very interesting class of objects to which these belong, do not differ from the rest of the material universe in the nature of their ultimate composition. In many other most important respects no doubt they do differ. But the peculiarity about them with which at this moment we are specially concerned is the fact, that they are the immediate channels of communication between the world I have just described, and the thinking beings who by their means are made acquainted directly with the appearance of that world, and indirectly with its true nature and constitution.

Before going further in the consideration of the general system of Science, it may be as well to remind the reader how unlike the world just described is to the world which we actually perceive, or can represent by an effort of the imagination. I do not of course mean to say that the world of perception and the world of science

are numerically distinct. This is evidently not so. When astronomers talk of the moon, they mean the moon we see ; when chemists talk of elementary substances, they mean things we can touch and handle. But when they go on to tell us about the intimate structure of these bodies they are soon compelled to use words which have only a symbolic meaning, and to refer to objects which (it may be) can be *thought*, but which certainly cannot in their real nature be either perceived or imagined.

That knowledge, or what passes for knowledge, soon gets in this way beyond the data of perception and the powers of imagination, is a fact which comes to the surface more prominently in Theology perhaps than in Science. I am not aware that this is because there is any essential philosophic difference between these two great departments of knowledge. It arises rather from the fact that, for controversial purposes, it has been found convenient to dwell on the circumstance that our idea of the Deity is to a certain extent necessarily anthropomorphic, while the no less certain, if somewhat less obvious, truth that our idea of the external world is also anthropomorphic, does not supply any ready argumentative weapon.

There are, however, further reasons why this side of the case has not received so much attention as the other. One of them is, I think, that any person speculating on this subject is apt to slide away from it into the allied but altogether distinct questions concerning realism and idealism. These are problems, however, the solution of which has no direct bearing upon the subject we are now discussing. Whether Realism or Idealism be true, whether either of them or both of them are consistent with Science, this broad fact remains, that the world as represented to us by Science can no more be perceived or imagined than the Deity as represented to us by Theology, and that in the first case, as in the second, we must content ourselves with symbolical images, of which the thing we can most certainly say is that they are not only inadequate but incorrect.

This is not an assertion which in reality requires much argument to support it. Its truth is apparent on simple inspection, and it applies equally to the two main constituents of the external world—to Matter as well as to Force.

416. We have seen what, according to scientific teaching, is the real nature of the external world (as for convenience I here call it) ; and we have seen that as it really is, it can neither be per-

ceived nor imagined. It is easy to conclude from this, what indeed is patent to everybody, that we arrive at our actual knowledge of its real nature, not immediately, but by a process of inference. That material objects consist of minute particles; that colour is the effect of the vibration of these particles; that these vibrations are transmitted as through an elastic and imponderable medium: that, in short, the world is what it is, are truths which, far from being intuitive, must be considered as the most refined deductions, as the latest triumphs, of scientific investigation.

What, then, are these deductions founded on? Men of science, who should be authorities on this point, inform us that they are founded on facts obtained by direct observation; and that the facts obtained by direct observation consist of what we can perceive of the qualities and behaviour of objects whose persistence, for the sake of argument, we are agreed to assume. In other words, our settled view of the universe is inferred from what we know of it *immediately*; and what we know of it immediately is its *appearance*.

Now the singular thing about this sort of reasoning is, that unless the premises be true, there seems no particular ground for accepting the conclusion; while if the conclusion be accepted, it is evident that the premises cannot be entirely true. Unless appearances are to be trusted, why should we believe in Science? If Science is true, how can we trust to appearances?

From the scientific point of view it may possibly be replied, that our immediate knowledge of the external world is in part to be trusted—but only in part. We know by direct observation—and know truly—of the existence of extended, resisting, and moving bodies; and we know, by a process of scientific inference, that the qualities of colour and so forth, which these extended, resisting, and moving bodies appear to possess, are really the subjective effects of the inter-action between them and our organism. So that Science may be said to provide us with a criterion by which we may distinguish between that which both seems to be and *is*, and that which seems to be, but *is not*.

Now that we do in practice so use Science to enable us to distinguish between reality and appearance, is undoubtedly the fact. But taken by itself, this circumstance affords no real solution of the difficulty, because the very thing we want more particularly to know is, how we can thus legitimately erect Science into a judge of its own cause.

417. When we are occupied with the consideration of how we come to possess the knowledge we have of the external world, if we are in a scientific rather than in a metaphysical humour, we immediately and naturally look at the question from the point of view of the physiology of perception; and the physiology of perception, in its most general form, teaches us this—that the immediate antecedent to an act of perception is some definite change in the organism of the percipient; and that if this change occurs, no matter how it is originated, the particular perception corresponding to it will occur likewise. Now the same kind of change may at different times have different sets of causes. If on any given occasion one of the proximate causes of the physiological change producing the perception is the thing perceived, then perception is said to be *normal*. If, on the other hand, the thing perceived is *not* one of the proximate causes of the physiological change, then we are said to be *deceived by an illusion of the senses*. Supposing, for example, that I see the moon when she is actually in the field of view, and her rays are striking on my retina, then the object seen is one of the causes of my seeing it, and the immediate knowledge conveyed to me in that act of perception is so far accurate. But if (to take the opposite case) I see a ghost, then, on the supposition that there are no such things, I am suffering under an optical delusion, since, whatever may be the causes of the physiological change which results in that act of perception, it cannot at all events be the object perceived, which by hypothesis has no existence.

This is the physiological theory of perception looked at from its causal or physical side. Looked at from its cognitive or mental side, it suggests the idea that there is, on the one hand, a Material Universe, and on the other a Mind; and that the Mind obtains its information respecting the Material Universe by looking at it through the medium of the five senses—a medium which altogether excludes a great deal, and distorts much of what it allows to pass. I am not here pretending to criticise this theory. In common with most theories which give an account of the origin of knowledge, it has a logical defect, which I shall attempt to explain in the next chapter. It has also, no doubt, philosophical difficulties peculiar to itself. But what I am concerned to show here is, that so far from presenting any difficulties in the way of a belief according to which a distinction is made between what *appears* and what *is*, it actually suggests such a belief; and that therefore it is not surprising that since we habitually think in terms (so to speak) of this theory, we

should be little troubled by the discrepancy I have shown to exist between the empirical premises of Science and its received conclusions.

It has been already pointed out this discrepancy cannot be smoothed away by any principle supplied by Science itself, except at the cost of arguing in a circle. But it may perhaps be thought that the whole scientific doctrine of matter, and of the methods by which the properties of matter become known to us, may be legitimately put forward as a *hypothesis*, and may be capable of verification, like other hypotheses, by an appeal to experience ; and that in this way the objection I have been urging may be successfully evaded.

Let me consider the subject for a moment from this point of view. The reasoning to which I object asserts that the laws governing material phenomena are inferred from the immediate knowledge of matter given in perception, and at the same time that the laws so inferred show this knowledge to be in certain particulars incorrect. The reasoning which it is proposed to substitute for this asserts that some at least of the laws governing material phenomena, and more especially those which are included in the physiological theory of perception, are not inferred from the knowledge given in perception, but are adopted as a hypothesis to account for the fact, that such and such perceptions exist—a function which they perform so successfully that they may be accepted as to all intents and purposes demonstrated truths.

This mode of establishing the laws of matter is identical in its general scope with that adopted by certain philosophers to prove the reality of the external world ; although the difficulty which suggests its adoption is different in the two cases. The philosophers of whom I speak were of opinion that we could perceive nothing beyond our own ideas, and they sought to avoid an idealistic conclusion by supposing that an objective cause was required to account for the fact that our ideas exist. The scientific argument, on the other hand, with which I am at present concerned, is not put forward in order to avoid a psychological difficulty, but a logical one. It is not required because introspective analysis shows this thing or that thing respecting the true nature of perception, but because the conclusions of Science, if made to depend solely on the immediate knowledge given in perception, do not, as a matter of fact, harmonise with their premises.

Now, in order to estimate properly the value of the argument

by which this difficulty is sought to be evaded, we must ignore the information given immediately by perception respecting the nature of the external causes by which perception is produced. This is evident, because the difficulty itself arose from our attempting to rest scientific doctrine on this information.

We are expected, then, to found a theory respecting the true nature of these external causes solely on the fact that their effects, i.e. our perceptions, are of such and such a character. Now this undertaking we may, I think, boldly assert to be impossible; and if there is any doubt about the matter, it may be set at rest by this single consideration, that if two causes capable of producing the effect to be accounted for (namely, our perceptions) be suggested, there is no possible way of deciding between them. Supposing, for example (to revive an old speculation), it was maintained that it is not matter possessed of certain properties which is the required cause, but the Deity acting directly on our minds. What reply could be made to such a supposition? The immediate answer that rises to our lips is that we know that matter exists, and that we have no such knowledge about the Deity. But how do we know that matter exists? Because we perceive it? This source of knowledge is excluded by hypothesis: nor can I imagine any other, of an empirical kind, except the one we are at the moment discussing. It must further be recollected that we have no reason to suppose that the limits of imagination represent on this subject the limits of possibility. Nor is it practicable, as I pointed out in the chapter on Historical Inference, by the mere contemplation of an effect (and it is to this that we are in the present case restricted) to discover all the causes by which it might conceivably have been produced, or to determine which of these possible causes, known or unknown, actually produced it.

If, then, we cannot argue from the mere fact that perceptions exist to the fact that material objects corresponding to them exist, neither is it possible to argue from the fact that these perceptions are of such and such a kind, to the fact that the objects perceived have such and such qualities.

Before concluding this section, let me point out what it is that I have *not* attempted to do in this last argumentative portion of it. I have not in any way been concerned with theories respecting the real constitution of matter based on metaphysical speculation, nor has any part of the reasoning depended on the truth of a particular doctrine of perception. I have simply assumed that, if as we are

told Science is founded upon experience, it must be founded on experience of one of two kinds : either upon that experience which may be described as the immediate knowledge of objects given in perception, or else upon the experience which is nothing else than our knowledge of the fact that we *have* such and such perceptions. On the first of these assumptions, I pointed out that the conclusions of Science contradicted its premises ; on the second, I showed that Science could draw no conclusions at all.

418. Has Science any claim to be set up as the standard of belief? Is there any ground whatever for regarding conformity with scientific teaching as an essential condition of truth ; and non-conformity with it as an unanswerable proof of error? If there is, it cannot be drawn from the nature of the scientific system itself. We have seen how a close examination of its philosophical structure reveals the existence of almost every possible philosophical defect. We have seen that whether Science be regarded from the point of view of its premises, its inferences, or the general relation of its parts, it is found defective ; and we have seen that the ordinary proofs which philosophers and men of science have thought fit to give of its doctrines are not only mutually inconsistent, but are such as would convince nobody who did not start (as, however, we all do start) with an implicit and indestructible confidence in the truth of that which had to be proved. I am far from complaining of this confidence. I share it. My complaint rather is, that of two creeds which, from a philosophical point of view, stand, so far as I can judge, upon a perfect equality, one should be set up as a standard to which the other must necessarily conform.

419. The vast extension of Science in recent times, its new conquests in old worlds, the new worlds it has discovered to conquer, the fruitfulness of its hypotheses, the palpable witness which material results bear to the excellence of its methods, may well lead men to think that the means by which these triumphs have been attained are above the reach even of the most audacious criticism. To be told in the face of facts like these that Science stands on no higher a level of certainty than what some people seem to look on as a dying superstition, may easily excite in certain minds a momentary doubt as to the seriousness of the objector.

Such a doubt is not likely to be more than transient. But if any reader, who has accompanied me so far, seriously entertains it, I can only invite him, since he regards my conclusions as absurd, to point out the fallacies which vitiate the reasoning on which those conclusions are finally based.

I have sometimes thought that the parallel between Science and Theology, regarded as systems of belief, might be conveniently illustrated by framing a refutation of the former on the model of certain attacks on the latter with which we are all familiar. We might begin by showing how crude and contradictory are the notions of primitive man, and even of the cultivated man in his unreflective moments, respecting the object-matter of scientific beliefs. We might point out the rude anthropomorphism which underlies them, and show how impossible it is to get altogether rid of this anthropomorphism, without refining away the object-matter till it becomes an unintelligible abstraction. We might then turn to the scientific apologists. We should show how the authorities of one age differed from those of another in their treatment of the subject, and how the authorities of the same age differed among themselves ; then—after taking up their systems one after another, and showing their individual errors in detail—we should comment at length on the strange obstinacy they evinced in adhering to their conclusions, whether they could prove them or not. It is at this point, perhaps, that according to usage we might pay a passing tribute to morality. With all the proper circumlocutions, we should suggest that so singular an agreement respecting some of the most difficult points requiring proof, together with so strange a divergence and so obvious a want of cogency in the nature of the proofs offered, could not be accounted for on any hypothesis consistent with the intellectual honesty of the apologists. Without attributing motives to individuals, we should hint politely, but not obscurely, that prejudice and education in some, the fear of differing from the majority, or the fear of losing a lucrative place in others, had been allowed to warp the impartial course of investigation ; and we should lament that scientific philosophers, in many respects so amiable and useful a body of men, should allow themselves so often to violate principles which they openly and even ostentatiously avowed. After this moral display, we should turn from the philosophers who are occupied with the rationale of the subject to the main body of men of science who are actually engaged in teaching and research. Fully acknowledging their many merits, we should yet be compelled to ask how

it comes about that they are so ignorant of the controversies which rage round the very foundations of their subject, and how they can reconcile it with their intellectual self-respect, when they are asked some vital question (say respecting the proof of the law of Universal Causation, or the existence of the external world), either to profess total ignorance of the subject, or to offer in reply some shreds of worn-out metaphysics? It is true, they might say that a profound study of these subjects is not consistent either with teaching or with otherwise advancing the cause of Science; but of course to this excuse we should make the obvious rejoinder that, before trying to advance the cause of Science, it would be as well to discover whether such a thing as true Science really existed. This done, we should have to analyse the actual body of scientific truth presented for our acceptance; to show how, while its conclusions are inconsistent, its premises are either lost in a metaphysical haze, or else are unfounded and gratuitous assumptions; after which it would only remain for us to compose an eloquent peroration on the debt which mankind owe to Science, and to the great masters who have created it, and to mourn that the progress of criticism should have left us no choice but to count it among the beautiful but baseless dreams which have so often deluded the human race with the phantom of certain knowledge.

Of course a parody—I ought rather to say a parallel—of this sort could serve no purpose but to make people reflect on the boldness of their ordinary assumption respecting the comparative certainty of Science and Religion. But this alone would be no small gain; since in the present state of opinion a suspicion as to the truth of that assumption seems the last thing that naturally suggests itself. Why should this be so? That men of Science should exaggerate the claims of Science is natural and pardonable, but why the ordinary public, whose knowledge of Science is confined to what they can extract from fashionable lectures and popular handbooks, should do so, it is not quite easy to understand. Perhaps I shall be told that there is a very simple explanation of this strange unanimity of opinion—namely, the fact that the opinion is true. To this I reply that, even if we dismiss all the reasons I have given for thinking that the opinion is *not* true, the objector will hardly assert that the general public (of whom alone I have been speaking) have ever made themselves acquainted with the sort of reasons by which alone the opinion can be *known* to be true, still less that they have taken the trouble to weigh those reasons with care. While,

if it be further suggested that they are guided by an unerring instinct in such matters, I answer that their instinct cannot always be unerring, for history sufficiently shows that it has not always been the same.

420. Without, however, making any special attack on individuals, the nature of my indictment against the general body of anti-religious controversialists may be easily stated. The force of their attack depends in the last resort upon the discrepancy they find, or think they find, between Religion and Science. It must require, therefore, a belief in, at all events, the comparative certitude of Science. On what does this belief finally depend? Are we to suppose that they rest its whole weight on the frail foundation supplied by the contradictory fragments of Philosophy we have been discussing through all these chapters? Or are we to suppose that their belief is a mere assumption, with no other recommendation than that it is agreeable to the spirit of the age? Or are we to suppose that it is established by some esoteric proof, known only to the few, and not yet published for the benefit of the world at large? The first of these alternatives implies in the thinkers of whom I speak the existence of an easy credulity in singular contrast with the acute scepticism they display when dealing with beliefs they do not happen to share. The second is, I think, hardly worthy of a class of writers who appeal so often and so earnestly to Reason, and who particularly pride themselves on proportioning the strength of their convictions to the strength of the evidence on which they rest. But if the third alternative represents the real state of the case, we have, I think, a right to ask that the concealment which the opponents of Religion are practising with so remarkable an unanimity should come to an end, and that, since the philosophy of Science exists, it should forthwith be produced for our enlightenment.

It is but justice, however, to the philosophic and literary advocates of extreme scientific pretensions, to remark that the blame which I have been laying on them should in part be shared by theologians. I do not mean, of course, that many theologians of repute could be found prepared to assert that Religion must either be proved wholly by scientific methods, and be shown to harmonise completely with scientific conclusions, or else be summarily rejected; but I do not assert that the extreme anxiety exhibited by certain of them to establish the perfect congruity of Science and

Religion—the existence of a whole class of ‘apologists,’ the end of whose labours appears to be to explain, or to explain away, every appearance of contradiction between the two—are facts which naturally suggest the conclusion that the assumption made by the Freethinkers¹ is a legitimate one.

Let me not be misunderstood. Truth is one. Therefore any attempt to reconcile inconsistent or apparently inconsistent beliefs is in itself legitimate, and in so far as apologetics aim at this and at nothing more, I have not a word to say against them; but the manner in which the controversy is carried on, even from the theological side, occasionally suggests the idea, not only that a consistent creed embracing both scientific and religious doctrines may be made at some time or other, but that it ought to be made now, and by no process more elaborate than that of lopping off from Religion everything which is not exactly agreeable with Science.

Yet the apologists should be the first to recognise the fact that this Procrustean method of reconciliation is not one which ought ever to be applied to their theological convictions. Its very ground and justification is the idea that enforced consistency is the shortest road to truth.

421. My imaginary critic supposes that I regard an ultimate impulse to believe a creed as a reason for believing it; and he supposes also that this ultimate ‘impulse’ is a better reason the more people there are who feel its influence. Neither of these opinions is accurate: on the contrary, they imply a total misconception as to the theory I am endeavouring to explain. This theory may be regarded as having two sides—one negative and the other positive. The negative side, the truth of which is capable of demonstration, amounts to an assertion that Religion is, at any rate, no worse off than Science in the matter of proof; that neither from the fact (if fact it be) that Religion only imperfectly harmonises with experience, nor from the fact that while men of science agree substantially with each other in their methods and in their results, theologians differ profoundly from each other in both, nor from any other known

¹ It is not easy to find a single word to describe the opponents of Religion which is altogether free from objection. Most of the terms which suggest themselves have either acquired a somewhat offensive connotation, or are inexact. One or both of these defects attaches to the words ‘Infidel,’ ‘Atheist,’ ‘Agnostic,’ and ‘Sceptic’. I have pitched upon ‘Freethinker’ because, if it suggests comparisons not altogether flattering to the modern assailants of theology, on the other hand, this is made up for by the fact that the strict meaning of the word credits them with a virtue to which they have no exclusive title.

difference between the two systems can any legitimate conclusion be drawn as to their comparative certitude. The positive side, on the other hand, which cannot properly be held to supply any rational ground of assent, and is in no way capable of actual demonstration, amounts to this—that I and an indefinite number of other persons, if we contemplate Religion and Science as unproved systems of belief standing side by side, feel a practical need for both ; and if this need is, in the case of those few and fragmentary scientific truths by which we regulate our animal actions, of an especially imperious and indestructible character—on the other hand, the need for religious truth, rooted as it is in the loftiest region of our moral nature, is one from which we would not, if we could, be freed. But as no legitimate argument can be founded on the mere existence of this need or impulse, so no legitimate argument can be founded on any differences which psychological analysis may detect between different cases of its manifestation. We are in this matter unfortunately altogether outside the sphere of Reason. It must always be useless to discuss whether a particular impulse towards a creed is either of the right strength or of the right quality to justify a belief in it ; because a belief can, in strictness, be justified by no impulse, whatever be its strength or whatever its quality. On the other hand, let no man who agrees with the reasoning of this Essay say, ‘I cannot believe in any creed which I know to be without evidence, merely because I feel a subjective need for it,’ unless he is prepared to limit his beliefs to those detached scientific (or metaphysical) propositions which are, I apprehend, the only ones he must in practice accept whether he likes it or not, or unless he can find some motive for believing in Science which is not an impulse and at the same time is not a reason. Let him, if he will, accept Science and reject Religion, but let him not give as an explanation of his behaviour an argument which would be as appropriate—or inappropriate—if he were engaged in showing why he accepted Religion and rejected Science.

The doctrine that no rational justification exists for adopting a different attitude towards the two systems of belief, depends, it should be noted, not only on the fact that we are without any rational ground for believing in Science, but also on the fact that we are without any rational ground for determining the logical relation which ought to subsist between Science and Religion. The Freethinkers habitually assume that this relation is one of dependence on the part of Religion, and that if there exist any reason for believing

it at all, these reasons are to be found scattered up and down among the doctrines of Science; confusing apparently the historic reasoning by which particular religious truths are established, with the deeper sentiments by which Religion itself is produced, and in the light of which these historic reasonings are conducted. Those, however, who make this assumption offer no proof of it; nor do they, so far as I know, even indicate the kind of proof of which they conceive it to be susceptible. They accept it, as they accept so many other assumptions, not only without having any evidence for it whatever (which I should not complain of), but without being apparently conscious that any evidence whatever is required.

In the absence then of reason to the contrary, I am content to regard the two great creeds by which we attempt to regulate our lives as resting in the main upon separate bases. So long, therefore, as neither of them can lay claim to philosophic probability, discrepancies which exist or may hereafter arise between them cannot be considered as bearing more heavily against the one than they do against the other. But if a really valid philosophy, which would support Science to the exclusion of Religion, or Religion to the exclusion of Science, were discovered, the case would be somewhat different, and it would undoubtedly be difficult for that creed which is not philosophically established to exist beside the other while in contradiction to it—difficult, I say, not absolutely impossible. In the meanwhile, unfortunately, this does not seem likely to become a practical question. What has to be determined now is the course which ought to be pursued with regard to discrepancies between systems, neither of which can be regarded as philosophically established, but neither of which can we consent to surrender; and on this subject, of course, it is only possible to make suggestions which may perhaps commend themselves to the practical instincts of the reader, though they cannot compel his intellectual assent. In my judgment, then, if these discrepancies are such that they can be smoothed away by concessions on either side which do not touch essentials, the concessions should be made; but if, which is not at present the case, consistency can only be purchased by practically destroying one or other of the conflicting creeds, I should elect in favour of inconsistency—not because I should be content with knowledge, which being self-contradictory must needs be in some particulars false, but because a logical harmony obtained by the arbitrary destruction of all discordant elements may be bought at far too great a sacrifice of essential and necessary truth.

422. It is not necessary, I think, that I should add anything more in explanation of my attitude towards those positive beliefs which I hold in harmony with, though not as conclusions from, the negative criticisms contained in the body of this Essay. I am painfully aware of how few there are, even among those few whom the dry and abstruse character of the argument does not repel, who are likely to be the least in sympathy with the point of view I have been trying to defend. It will hardly find favour either with the ordinary believer or with the ordinary unbeliever. As regards the former, indeed, I console myself by thinking that the only practical end I desire has been in their case already attained. But as regards the latter, I am afraid that I have said nothing which they will even consider relevant to their own difficulties—if they have any—respecting the choice of a creed. They either ignore or are without that religious impulse, in the absence of which it is useless to clear away, by any merely dialectical process the obstructions that, did it exist, would hinder its free development. Their case is not one that can be reached by argument, and argument is all I have to offer. Even could I command the most fervid and persuasive eloquence; could I rouse with power the slumbering feelings which find in Religion their only lasting satisfaction; could I compel every reader to long earnestly and with passion for some living share in that Faith which has been the spiritual life of millions ignorant alike of Science and Philosophy, this is not the occasion on which to do so. I should shrink from dragging into a controversy pitched throughout in another key, thoughts whose full and intimate nature it is given to few adequately to express, and which, were I one of those few, would seem strangely misplaced at the conclusion of this dry and scholastic argument.

In any case, however, such a task is beyond my powers, and therefore I cannot hope that my reasoning, even could I suppose it to be unanswerable, will produce any but a negative effect on those who approach the question of religious truth in that indifferent mood which they would perhaps themselves describe as intellectual impartiality. There may, however, be some of another temper, who would regard Religion as the most precious of all inheritances—if only it were true; who surrender slowly and unwillingly to what they conceive to be unanswerable argument, convictions with which yet they can scarcely bear to part; who, for the sake of Truth, are prepared to give up what they had been wont to think of as

their guide in this life, their hope in another, and to take refuge in some of the strange substitutes for Religion provided by the ingenuity of these latter times. It is not impossible that to some of these, hesitating between arguments to which they can find no reply and a creed which they feel to be necessary, the line of thought suggested by this chapter may be of service. Should such prove to be the case, this Essay will have an interest and a utility beyond that of pure Speculation; and I shall be more than satisfied.

423. The discord between Science and Religion has reference chiefly, if not entirely, to the interference by the supernatural with the natural, which Religion requires us to believe in; and the amount of this discord may be measured by the importance of the scientific doctrines which such a belief would require us to give up, if we were determined at all hazards to make the two systems consistent with each other. In discussing this subject, I shall assume, for the sake of argument, that this interference is not, as has been often suggested, produced immediately by the operation of some *unknown* though *natural* law; but that the common opinion is correct which attributes it to the direct action of a Supernatural Power. The question therefore we have to ask, is this: What scientific beliefs do we contradict if we assert that a Supernatural Power has on various occasions interfered with the operation of natural laws? 'We contradict,' it will be replied, 'the belief in the uniformity of Nature.' Is the belief which is thus contradicted particularly important then to Science? 'So important,' many people would answer, 'that it lies at the foundation of all our scientific reasoning, as well as all of our practical judgments.' This I understand to be the opinion of the two most recent assailants of Theology who, so far as I know, have touched on the subject—namely, the author of "Supernatural Religion" and Mr. Leslie Stephen.

424. It would appear that Mr. Stephen holds, and thinks that Hume implicitly held, the doctrine that a belief in occasional Divine interference is inconsistent with that belief in the uniformity of Nature which is 'the sole guarantee of our reasoning'. I doubt whether this was Hume's opinion; in any case it is incorrect.

The scientific belief which, with least impropriety, may be termed the 'sole guarantee' of our reasoning, is *that* belief in the uniformity of Nature which is equivalent to a belief in the law of

universal causation ; which again is equivalent to a belief that similar antecedents are always followed by similar consequence. But this belief, as the least reflection will convince the reader, is in no way inconsistent with a belief in supernatural interference.

A belief in the uniformity of Nature, which is equivalent to a belief that natural effects are uniformly preceded by natural causes, no doubt *is* inconsistent with supernatural interference ; but of what pieces of reasoning it is our sole guarantee, except those directed to show that in any given case the hypothesis of supernatural interference must be rejected, I am not able to say.

It is clear, then, that the most important discrepancy which has been, or could be, alleged to exist between Science and Religion has no real existence. The only great general principle on which scientific philosophers have as yet been able to rest their scientific creed is untouched.

425. Does, then, Theology require us to modify in any way our beliefs concerning the abstract part of Science ? I apprehend that it does not. Such beliefs are in themselves as true and as fully proved if supernatural interference be possible as they are if such interference be impossible. A law does not do more than state that under certain circumstances (positive and negative) certain phenomena will occur. If on some occasions these circumstances, owing to supernatural interference, do *not* occur, the fact that the phenomena do not follow proves nothing as to the truth or falsehood of the law. If we believe that oxygen and hydrogen will combine under given conditions to produce water, we believe so none the less because we happen also to believe that some Supernatural Power may interpose, or has on certain occasions interposed, to prevent that result. I need not further insist on this point, which is obvious enough in itself, and on which I believe I am in agreement with Mr. Mill and others who are not commonly suspected of a theological bias.

426. Regarded in their relation to us as men, the facts which Theology asserts to have happened are unquestionably of transcendent importance. Regarded in their relation to Science, this can hardly be maintained. *As phenomena*, the few events which are said to have occurred in Palestine and elsewhere of a supernatural character are scarcely worth noting. Being supernatural,

they furnish no grounds either for believing in any new law of Nature or for disbelieving any which we had before supposed to be established ; and being few, they are lost in the mass of facts which have succeeded each other since the earth came into being. ‘Is the supernatural creation of the world, then, nothing?’ the reader may be tempted to exclaim. I have always understood¹ that this is a subject on which men of science professed to be altogether out of their sphere. ‘What, then, do you say about a belief in Providence, and in the possible interference of Supernatural Power in answer to prayer?’ These, again, are not convictions which require us to modify our adherence to known laws. They may cast, indeed, an additional shade of doubt over our expectation of the events which are to occur in the future, as well as over the explanation of the events which have occurred in the past ; and if our actual scientific inferences were (as I have shown in the fourth chapter that they are not) of a satisfactory character on these points, this might prove a matter of some, though not, I think, of very great importance. As it is, however, the Supernatural Power is only one of an indefinite number of known and unknown natural powers, which we never have seen, and perhaps can never hope to see, reduced to law, and which even if we leave miraculous interference out of account would suffice to make demonstrative prophecy or retrospection an absolute impossibility.

It would appear then that the discrepancy between Religion and Science, which vanishes altogether if we take the hypothesis most favourable to the Theologians, is comparatively insignificant in its amount even on the hypothesis most favourable to the Freethinkers : and if many writers who certainly know a great deal about Science, and may be supposed to know something about Theology, are of an altogether different opinion, this may, I apprehend, be attributed to the fact that they approach the question with their minds completely saturated with a theory of the logical relation which ought to subsist between Religion and Science, according to which the grounds, if any, for believing the first, are to be found, if anywhere, among the doctrines of the second. It is not hard to see that on any presupposition of this sort (combined as it is with the assumption that Science is philosophically established), the smallest

¹ If the literal interpretation of the Mosaic account of the creation is to be accepted as an essential part of religion, no doubt the discrepancy between Religion and Science will be greater than that stated in the text. I have, however, assumed (in accordance with what I understand to be the opinion of theological experts) that this is not the case.

want of harmony between the two systems may, or rather must, lead to the most important consequences ; since the mere discovery that they are not rationally connected would remove all ground for accepting the dependent creed ; while the least appearance of contradiction would supply a positive ground for rejecting it. As, however, I have in the preceding chapter sufficiently expressed my dissent from this view, it is not necessary that I should here any further allude to it. I merely desired to point out the principal reason which I believe exists for the great exaggeration which is occasionally to be observed in the estimate of the importance of the contradiction between current Religion and current Science put forward by thinkers of reputation.

427. The unification of all belief into an ordered whole, compacted into one coherent structure under the stress of reason, is an ideal which we can never abandon ; but it is also one which, in the present condition of our knowledge, perhaps even of our faculties, we seem incapable of attaining. For the moment we must content ourselves with something less than this. The best system we can hope to construct will suffer from gaps and rents, from loose ends and ragged edges. It does not, however, follow from this that it will be without a high degree of value ; and, whether valuable or worthless, it may at least represent the best within our reach.

By the best I, of course, mean best in relation to reflective reason. If we have to submit, as I think we must, to an incomplete rationalisation of belief, this ought not to be because in a fit of intellectual despair we are driven to treat reason as an illusion ; nor yet because we have deliberately resolved to transfer our allegiance to irrational or non-rational inclination ; but because reason itself assures us that such a course is, at the lowest, the least irrational one open to us. If we have to find our way over difficult seas and under murky skies without compass or chronometer, we need not on that account allow the ship to drive at random. Rather ought we to weigh with the more anxious care every indication, be it negative or positive, and from whatever quarter it may come, which can help us to guess at our position and to lay out the course which it behoves us to steer.

428. One peculiarity there is which seems at first sight effect-

ally to distinguish certain scientific beliefs from any which belong, say, to ethics or theology ; a peculiarity which may, perhaps, be best expressed by the word 'inevitableness'. Everybody has, and everybody is obliged to have, some convictions about the world in which he lives—convictions which in their narrow and particular form (as what I have before called beliefs of perception, memory, and expectation) guide us all, children, savages, and philosophers alike, in the ordinary conduct of day-to-day existence ; which, when generalised and extended, supply us with some of the leading presuppositions on which the whole fabric of science appears logically to depend. No convictions quite answering to this description can, I think, be found either in ethics, æsthetics, or theology. Some kind of morality is, no doubt, required for the stability even of the rudest form of social life. Some sense of beauty, some kind of religion, is, perhaps, to be discovered (though this is disputed) in every human community. But certainly there is nothing in any of these great departments of thought quite corresponding to our habitual judgments about the things we see and handle ; judgments which, with reason or without it, all mankind are practically compelled to entertain.

Compare, for example, the central truth of theology—'There is a God'—with one of the fundamental presuppositions of science (itself a generalised statement of what is given in ordinary judgments of perception)—'There is an independent material world'. I am myself disposed to doubt whether so good a case can be made out for accepting the second of these propositions as can be made out for accepting the first. But while it has been found by many not only possible, but easy, to doubt the existence of God, doubts as to the independent existence of matter have assuredly been confined to the rarest moments of subjective reflection, and have dissolved like summer mists at the first touch of what we are pleased to call reality.

429. If we could suppose a community to be called into being who, in its dealings with the 'external world,' should permit action to wait upon speculation, and require all its metaphysical difficulties to be solved before reposing full belief in some such material surroundings as those which we habitually postulate, its members would be overwhelmed by a ruin more rapid and more complete than that which, in a preceding chapter, was prophesied for those

who should succeed in ousting authority from its natural position among the causes of belief.

430. Faith or assurance, which, if not in excess of reason, is at least independent of it, seems to be a necessity in every great department of knowledge which touches on action ; and what great department is there which does not ? The analysis of sense-experience teaches us that we require it in our ordinary dealings with the material world. The most cursory examination into the springs of moral action shows that it is an indispensable supplement to ethical speculation. Theologians are for the most part agreed that without it religion is but the ineffectual profession of a barren creed. The comparative value, however, of these faiths is not to be measured either by their intensity or by the degree of their diffusion. It is true that all men, whatever their speculative opinions, enjoy a practical assurance with regard to what they see and touch. It is also true that few men have an assurance equally strong about matters of which their senses tell them nothing immediately ; and that many men have on such subjects no assurance at all. But as this is precisely what we should expect if, in the progress of evolution, the need for other faiths had arisen under conditions very different from those which produced our innate and long-descended confidence in sense-perception, how can we regard it as a distinction in favour of the latter ? We can scarcely reckon universality and necessity as badges of pre-eminence, at the same moment that we recognise them as marks of the elementary and primitive character of the beliefs to which they give their all-powerful, but none the less irrational, sanction. The time has passed for believing that the further we go back towards the 'state of nature,' the nearer we get to Virtue and to Truth.

431. As rational necessity does not, so far as I can see, carry us at the best beyond a system of mere 'solipsism,' it must, somehow or other, be supplemented if we are to force an entrance into any larger and worthier inheritance. My complaint rather is, that having asked us to acquiesce in the guidance of non-rational impulse, they should then require us arbitrarily to narrow down the impulses which we may follow to the almost animal instincts lying at the root of our judgments about material phenomena. It is surely better—less repugnant, I mean, to reflective reason—to frame

for ourselves some wider scheme which, though it be founded in the last resort upon our needs, shall at least take account of other needs than those we share with our brute progenitors.

And here, if not elsewhere, I may claim the support of the most famous masters of speculation. Though they have not, it may be, succeeded in supplying us with a satisfactory explanation of the Universe, at least the Universe which they have sought to explain has been something more than a mere collection of hypostatized sense-perceptions, packed side by side in space, and following each other with blind uniformity in time. All the great architects of systems have striven to provide accommodation within their schemes for ideas of wider sweep and richer content ; and whether they desired to support, to modify, or to oppose the popular theology of their day, they have at least given hospitable welcome to some of its most important conceptions.

In the case of such men as Leibnitz, Kant, Hegel, this is obvious enough. It is true, I think, even in such a case as that of Spinoza. Philosophers, indeed, may find but small satisfaction in his methods or conclusions. They may see but little to admire in his elaborate but illusory show of quasi-mathematical demonstration ; in the Nature which is so unlike the Nature of the physicist that we feel no surprise at its being also called God ; in the God Who is so unlike the God of the theologian that we feel no surprise at His also being called Nature ; in the *a priori* metaphysic which evolves the universe from definitions ; in the freedom which is indistinguishable from necessity ; in the volition which is indistinguishable from intellect ; in the love which is indistinguishable from reasoned acquiescence ; in the universe from which have been expelled purpose, morality, beauty, and causation, and which contains, therefore, but scant room for theology, ethics, æsthetics, or science. In the two hundred years and more which have elapsed since the publication of his system, it may be doubted whether two hundred persons have been convinced by his reasoning. Yet he continues to interest the world ; and why ? Not, surely, as a guide through the mazes of metaphysics. Not as a pioneer of 'higher' criticism. Least of all because he was anything so commonplace as a heretic or an atheist. The true reason appears to me to be very different. It is partly, at least, because in despite of his positive teaching he was endowed with a religious imagination which, in however abstract and metaphysical a fashion, illumined the whole profitless bulk of inconclusive demonstration ; which enabled him to find in notions

most remote from sense-experience the only abiding realities ; and to convert a purely rational adhesion to the conclusions supposed to flow from the nature of an inactive, impersonal, and unmoral substance, into something not quite inaptly termed the Love of God.

432. Is it true to say that, in the absence of reason, we have contentedly accepted mere desire for our guide? No doubt the theory here advocated requires us to take account, not merely of premises and their conclusions, but of needs and their satisfaction. But this is only asking us to do explicitly and on system what on the naturalistic theory is done unconsciously and at random. By the very constitution of our being we seem practically driven to assume a real world in correspondence with our ordinary judgments of perception. A harmony of some kind between our inner selves and the universe of which we form a part is thus the tacit postulate at the root of every belief we entertain about 'phenomena' ; and all that I now contend for is that a like harmony should provisionally be assumed between that universe and other elements in our nature which are of a later, of a more uncertain, but of no ignobler, growth.

433. If, as is not unlikely, there are readers who are unwilling to acknowledge this kind of equality between the different branches of knowledge—who are disposed to represent Science as a Land of Goshen, bright beneath the unclouded splendours of the midday sun, while Religion lies beyond, wrapped in the impenetrable darkness of the Egyptian plague—I would suggest for their further consideration certain arguments, not drawn like those in an earlier portion of this Essay from the deficiencies which may be detected in scientific proof, but based exclusively upon an examination of fundamental scientific ideas considered in themselves. For these ideas possess a quality, exhibited no doubt equally by ideas in other departments of knowledge, which admirably illustrates our ignorance of what we know best, our blindness to what we see most clearly. This quality, indeed, is not very easy to describe in a sentence ; but perhaps it may be provisionally indicated by saying that, although these ideas seem quite simple so long as we only have to handle them for the practical purposes of daily life, yet,

when they are subjected to critical investigation, they appear to crumble under the process; to lose all precision of outline; to vanish like the magician in the story, leaving only an elusive mist in the grasp of those who would arrest them.

434. What are 'we'? What is space? Can 'we' be in space, or is it only our bodies about which any such statement can be made? What is a 'thing'? and, in particular, what is a 'material thing'? What is meant by saying that one 'material thing' acts upon another? What is meant by saying that 'material things' act upon 'us'? Here are six questions all directly and obviously arising out of our most familiar acts of judgment. Yet, direct and obvious as they are, it is hardly too much to say that they involve all the leading problems of modern philosophy, and that the man who has found an answer to them is the fortunate possessor of a tolerably complete system of metaphysic.

Consider, for example, the simplest of the six questions enumerated above, namely, What is a 'material thing'? Nothing could be plainer till you consider it. Nothing can be obscurer when you do. A 'thing' has qualities—hardness, weight, shape, and so forth. Is it merely the sum of these qualities, or is it something more? If it is merely the sum of its qualities, have these any independent existence? Nay, is such an independent existence even conceivable? If it is something more than the sum of its qualities, what is the relation of the 'qualities' to the 'something more'? Again, can we on reflection regard a 'thing' as an isolated 'something,' an entity self-sufficient and potentially solitary? Or must we not rather regard it as being what it is in virtue of its relation to other 'somewhats,' which, again, are what they are in virtue of their relation to it, and to each other? And if we take, as I think we must, the latter alternative, are we not driven by it into a profitless progression through parts which are unintelligible by themselves, but which yet obstinately refuse to coalesce into any fully intelligible whole?

Now, I do not serve up these cold fragments of ancient though unsolved controversies for no better purpose than to weary the reader who is familiar with metaphysical discussion, and to puzzle the reader who is not. I rather desire to direct attention to the universality of a difficulty which many persons seem glad enough

to acknowledge when they come across it in theology, though they admit it only with reluctance in the case of ethics and æsthetics, and for the most part completely ignore it when they are dealing with our knowledge of 'phenomena'. Yet in this respect, at least, all these branches of knowledge would appear to stand very much upon an equality. In all of them conclusions seem more certain than premises, the superstructure more stable than the foundation. In all of them we move with full assurance and a practical security only among ideas which are relative and dependent. In all of them these ideas, so clear and so sufficient for purposes of everyday thought and action, become confused and but dimly intelligible when examined in the unsparing light of critical analysis.

435. Mr. Spencer's theory admits, nay, insists, that what it calls 'ultimate scientific ideas' are inconsistent, and, to use his own phrase, 'unthinkable'. Space, time, matter, motion, force, and so forth, are each in turn shown to involve contradictions which it is beyond our power to solve, and obscurities which it is beyond our power to penetrate; while the once famous dialectic of Hamilton and Mansel is invoked for the purpose of enforcing the same lesson with regard to the Absolute and the Unconditioned, which those thinkers identified with God, but which Mr. Spencer prefers to describe as the Unknowable.

So far, so good. Though the details of the demonstration may not be altogether to our liking, I, at least, have no particular quarrel with its general tenor, which is in obvious harmony with much that I have just been insisting on. But when we have to consider the conclusion which Mr. Spencer contrives to extract from these premises, our differences become irreconcilable. He has proved, or supposes himself to have proved, that the 'ultimate ideas' of science and the 'ultimate ideas' of theology are alike 'unthinkable'. What is the proper inference to be drawn from these statements? Why, clearly, that science and theology are so far on an equality that every proposition which considerations like these oblige us to assert about the one, we are bound to assert also about the other; and that our general theory of knowledge must take account of the fact that both these great departments of it are infected by the same weakness.

436. The truth is that Mr. Spencer, like many of his predecessors, has impaired the value of his speculations by the hesitating timidity with which he has pursued them. Nobody is required to investigate first principles ; but those who voluntarily undertake the task should not shrink from its results. And if among these we have to count a theoretical scepticism about scientific knowledge, we make matters, not better, but worse, by attempting to ignore it. In Mr. Spencer's case this procedure has, among other ill consequences, caused him to miss the moral which at one moment lay ready to his hand. He has had the acuteness to see that our beliefs cannot be limited to the sequences and the co-existences of phenomena ; that the ideas on which science relies, and in terms of which all science has to be expressed, break down under the stress of criticism ; that beyond what we think we know, and in closest relationship with it, lies an infinite field which we do not know, and which with our present faculties we can never know, yet which cannot be ignored without making what we do know unintelligible and meaningless. But he has failed to see whither such speculations must inevitably lead him. He has failed to see that if the certitudes of science lose themselves in depths of unfathomable mystery, it may well be that out of these same depths there should emerge the certitudes of religion ; and that if the dependence of the 'knowable' upon the 'unknowable' embarrasses us not in the one case, no reason can be assigned why it should embarrass us in the other.

Mr. Spencer, in short, has avoided the error of dividing all reality into a Perceivable which concerns us, and an Unperceivable which, if it exists at all, concerns us not. Agnosticism so understood he explicitly repudiates by his theory, if not by his practice. But he has not seen that, if this simple-minded creed be once abandoned, there is no convenient halting-place till we have swung round to a theory of things which is almost its precise opposite ; a theory which, though it shrinks on its speculative side from no severity of critical analysis, yet on its practical side finds the source of its constructive energy in the deepest needs of man, and thus recognises, alike in science, in ethics, in beauty, in religion, the halting expression of a reality beyond our reach, the half-seen vision of transcendent Truth.

437. It must not be supposed that I intend either to deny that it is our business to 'reconcile' all beliefs, so far as possible,

into a self-consistent whole, or to assert that, because a perfectly coherent philosophy cannot as yet be attained, it is, in the meanwhile, a matter of complete indifference how many contradictions and obscurities we admit into our provisional system. Some contradictions and obscurities there needs must be. That we should not be able completely to harmonise the detached hints and isolated fragments in which alone Reality comes into relation with us; that we should but imperfectly co-ordinate what we so imperfectly comprehend, is what we might expect, and what for the present we have no choice but to submit to. Yet it will, I think, be found on examination that the discrepancies which exist between different departments of belief are less in number and importance than those which exist within the various departments themselves; that the difficulties which science, ethics, or theology have to solve in common are more formidable by far than any which divide them from each other; and that, in particular, the supposed 'conflict between science and religion,' which occupies so large a space in contemporary literature, is the theme of so much vigorous debate, and seems to so many earnest souls the one question worth resolving, is either concerned for the most part with matters in themselves comparatively trifling, or touches interests lying far beyond the limits of pure theology.

438. Of course it must be remembered that I am now talking of science, not of naturalism. The differences between naturalism and theology are, no doubt, irreconcilable, since naturalism is by definition the negation of theology. But science must not be dragged into every one of the many quarrels which naturalism has taken upon its shoulders. Science is in no way concerned, for instance, to deny the reality of a world unrevealed to us in sense-perception, nor the existence of a God who, however imperfectly, may be known by those who diligently seek Him. All it says, or ought to say, is that these are matters beyond its jurisdiction; to be tried, therefore, in other courts, and before judges administering different laws. But we may go further. The being of God may be beyond the province of science, and yet it may be from a consideration of the general body of scientific knowledge that philosophy draws some important motives for accepting the doctrine. Any complete survey of the 'proofs of theism' would, I need not say, be here quite out of place; yet, in order to make clear where I think the real difficulty lies in framing any system which shall include both theology and

science, I may be permitted to say enough about theism to show where I think the difficulty does *not* lie. It does not lie in the doctrine that there is a supernatural or, let us say, a metaphysical ground, on which the whole system of natural phenomena depends ; nor in the attribution to this ground of the quality of reason, or, it may be, of something higher than reason, in which reason is, so to speak, included. This belief, with all its inherent obscurities, is, no doubt, necessary to theology, but it is at the same time so far, in my judgment, from being repugnant to science that, without it, the scientific view of the natural world would not be less, but more, beset with difficulties than it is at present.

439. An induction which may be perfectly valid within the circle of phenomena, may be quite meaningless when it is employed to account for the circle itself. You cannot infer a God from the existence of the world as you infer an architect from the existence of a house, or a mechanic from the existence of a watch.

440. The uniformity of Nature, as I have before explained, cannot be proved by experience, for it is what makes proof from experience possible. We must bring it, or something like it, to the facts in order to infer anything from them at all. Assume it, and we shall no doubt find that, broadly speaking and in the rough, what we call the facts conform to it. But this conformity is not inductive proof, and must not be confounded with inductive proof. In the same way, I do not contend that, if we start from Nature without God, we shall be logically driven to believe in Him by a mere consideration of the examples of adaptation which Nature undoubtedly contains. It is enough that when we bring this belief with us to the study of phenomena, we can say of it, what we have just said of the principle of uniformity, namely, that 'broadly speaking and in the rough,' the facts harmonise with it, and that it gives a unity and a coherence to our apprehension of the natural world which it would not otherwise possess.

441. But the argument from design, in whatever shape it is accepted, is not the only one in favour of theism with which scientific knowledge furnishes us. Nor is it, to my mind, the most important. The argument from design rests upon the world as known. But

something also may be inferred from the mere fact that we know—a fact which, like every other, has to be accounted for. And how is it to be accounted for? I need not repeat again what I have already said about Authority and Reason ; for it is evident that, whatever be the part played by reason among the proximate causes of belief, among the ultimate causes it plays, according to science, no part at all. On the naturalistic hypothesis, the whole premises of knowledge are clearly due to the blind operation of material causes, and in the last resort to these alone. On that hypothesis we no more possess free reason than we possess free will. As all our volitions are the inevitable product of forces which are quite alien to morality, so all our conclusions are the inevitable product of forces which are quite alien to reason. As the casual introduction of conscience, or a ‘good will,’ into the chain of causes which ends in a ‘virtuous action’ ought not to suggest any idea of merit, so the casual introduction of a little ratiocination as a stray link in the chain of causes which ends in what we are pleased to describe as a ‘demonstrated conclusion,’ ought not to be taken as implying that the conclusion is in harmony with fact. Morality and reason are august names, which give an air of respectability to certain actions and certain arguments ; but it is quite obvious on examination that, if the naturalistic hypothesis be correct, they are but unconscious tools in the hands of their unmoral and non-rational antecedents, and that the real responsibility for all they do lies in the distribution of matter and energy which happened to prevail far back in the incalculable past.

These conclusions are, no doubt, as we saw at the beginning of this Essay, embarrassing enough to Morality. But they are absolutely ruinous to Knowledge. For they require us to accept a system as rational, one of whose doctrines is that the system itself is the product of causes which have no tendency to truth rather than falsehood, or to falsehood rather than truth. Forget, if you please, that reason itself is the result, like nerves or muscles, of physical antecedents. Assume (a tolerably violent assumption) that in dealing with her premises she obeys only her own laws. Of what value is this autonomy if those premises are settled for her by purely irrational forces, which she is powerless to control, or even to comprehend? The professor of naturalism rejoicing in the display of his dialectical resources, is like a voyager, pacing at his own pleasure up and down the ship’s deck, who should suppose

that his movements had some important share in determining his position on the illimitable ocean. And the parallel would be complete if we can conceive such a voyager pointing to the alertness of his step and the vigour of his limbs as auguring well for the successful prosecution of his journey, while assuring you in the very same breath that the vessel, within whose narrow bounds he displays all this meaningless activity, is drifting he knows not whence nor whither, without pilot or captain, at the bidding of shifting winds and undiscovered currents.

442. Until there occurred the unexplained leap from the Inorganic to the Organic, Selection, of course, had no place among the evolutionary processes ; while even after that date it was, from the nature of the case, only concerned to foster and perpetuate those chance-born beliefs which minister to the continuance of the species. But what an utterly inadequate basis for speculation is here ! We are to suppose that powers which were evolved in primitive man and his animal progenitors in order that they might kill with success and marry in security, are on that account fitted to explore the secrets of the universe. We are to suppose that the fundamental beliefs on which these powers of reasoning are to be exercised reflect with sufficient precision remote aspects of reality, though they were produced in the main by physiological processes which date from a stage of development when the only curiosities which had to be satisfied were those of fear and those of hunger. To say that instruments of research constructed solely for uses like these cannot be expected to supply us with a metaphysic or a theology, is to say far too little. They cannot be expected to give us any general view even of the phenomenal world, or to do more than guide us in comparative safety from the satisfaction of one useful appetite to the satisfaction of another. On this theory, therefore, we are again driven back to the same sceptical position in which we found ourselves left by the older forms of the 'positive,' or naturalistic creed. On this theory, as on the other, reason has to recognise that her rights of independent judgment and review are merely titular dignities, carrying with them no effective powers ; and that, whatever her pretensions, she is, for the most part, the mere editor and interpreter of the utterances of unreason. I do not believe that any escape from these perplexities is possible, unless we are prepared to bring to the study of the world the

presupposition that it was the work of a rational Being who made *it* intelligible, and at the same time made *us*, in however feeble a fashion, able to understand it. This conception does not solve all difficulties; far from it. But, at least, it is not on the face of it incoherent. It does not attempt the impossible task of extracting reason from unreason; nor does it require us to accept among scientific conclusions any which effectually shatter the credibility of scientific premises.

443. Theism, then, whether or not it can in the strict meaning of the word be described as proved by science, is a principle which science, for a double reason, requires for its own completion. The ordered system of phenomena asks for a cause; our knowledge of that system is inexplicable unless we assume for it a rational Author. Under this head, at least, there should be no 'conflict between science and religion'.

It is true, of course, that if theism smoothes away some of the difficulties which atheism raises, it is not on that account without difficulties of its own. We cannot, for example, form, I will not say any adequate, but even any tolerable, idea of the mode in which God is related to, and acts on, the world of phenomena. That He created it, that He sustains it, we are driven to believe. How He created it, how He sustains it, is impossible for us to imagine. But let it be observed that the difficulties which thus arise are no peculiar heritage of theology, or of a science which accepts among its presuppositions the central truth which theology teaches. Naturalism itself has to face them in a yet more embarrassing form. For they meet us not only in connection with the doctrine of God, but in connection with the doctrine of man. Not Divinity alone intervenes in the world of things. Each living soul, in its measure and degree, does the same. Each living soul which acts on its surroundings raises questions analogous to, and in some ways more perplexing than, those suggested by the action of a God immanent in a universe of phenomena.

444. According to a once prevalent theory, 'innate ideas' were true because they were implanted in us by God. According to my way of putting it, there must be a God to justify our confidence in (what used to be called) innate ideas. I have given the argument in a form which avoids all discussion as to the nature of the relation

between mind and body. Whatever be the mode of describing this which ultimately commends itself to naturalistic psychologists, the reasoning in the text holds good.

445. Every theory of the relation between Will, or, more strictly, the Willing Self and Matter, must come under one of two heads: (1) Either Will acts on Matter, or (2) it does not. If it does act on Matter, it must be either as Free Will or as Determined Will. If it is as Free Will, it upsets the uniformity of Nature, and our most fundamental scientific conceptions must be recast. If it is as Determined Will, that is to say, if volition be interpolated as a necessary link between one set of material movements and another, then, indeed, it leaves the uniformity of Nature untouched: but it violates mechanical principles. According to the mechanical view of the world, the condition of any material system at one moment is absolutely determined by its condition at the preceding moment. In a world so conceived there is no room for the interpolation even of Determined Will among the causes of material change. It is mere surplusage.

(2) If the Will does not act on Matter, then we must suppose either that volition belongs to a psychic series running in a parallel stream to the physiological changes of the brain, though neither influenced by it nor influencing it—which is, of course, the ancient theory of pre-established harmony; or else we must suppose that it is a kind of superfluous consequence of certain physiological changes produced presumably without the exhaustion of any form of energy, and having no effect whatever, either upon the material world or, I suppose, upon other psychic conditions. This reduces us to automata, and automata of a kind very difficult to find proper accommodation for in a world scientifically conceived.

None of these alternatives seem very attractive, but one of them would seem to be inevitable.

446. But, in truth, without going into the metaphysics of the Self, our previous discussions contain ample material for showing how impenetrable are the mists which obscure the relation of mind to matter, of things to the perception of things. Neither can be eliminated from our system. Both must perforce form elements in every adequate representation of reality. Yet the philosophic artist has still to arise who shall combine the two into a single picture,

without doing serious violence to essential features, either of the one or the other. I am myself, indeed, disposed to doubt whether any concession made by the 'subjective' to the 'objective,' or by the 'objective' to the 'subjective,' short of the total destruction of one or the other, will avail to produce a harmonious scheme. And certainly no discord could be so barren, so unsatisfying, so practically impossible, as a harmony attained at such a cost. We must acquiesce, then, in the existence of an unsolved difficulty. But it is a difficulty which meets us, in an even more intractable form, when we strive to realise the nature of our own relations to the little world in which we move, than when we are dealing with a like problem in respect to the Divine Spirit, Who is the Ground of all being and the Source of all change.

447. But though there should thus be no conflict between theology and science, either as to the existence of God or as to the possibility of His acting on phenomena, it by no means follows that the idea of God which is suggested by science is compatible with the idea of God which is developed by theology. Identical, of course, they need not be. Theology would be unnecessary if all we are capable of learning about God could be inferred from a study of Nature. Compatible, however, they seemingly must be, if science and religion are to be at one.

And yet I know not whether those who are most persuaded that the claims of these two powers are irreconcilable rest their case willingly upon the most striking incongruity between them which can be produced—I mean the existence of misery and the triumphs of wrong. Yet no one is, or, indeed, could be, blind to the difficulty which thence arises. From the world as presented to us by science we might conjecture a God of power and a God of reason; but we never could infer a God who was wholly loving and wholly just. So that what religion proclaims aloud to be His most essential attributes are precisely those respecting which the oracles of science are doubtful or are dumb.

One reason, I suppose, why this insistent thought does not, so far as my observation goes, supply a favourite weapon of controversial attack, is that ethics is obviously as much interested in the moral attributes of God as theology can ever be (a point to which I shall presently return). But another reason, no doubt, may be found in the fact that the difficulty is one which has been profoundly

realised by religious minds ages before organised science can be said to have existed; while, on the other hand, the growth of scientific knowledge has neither increased nor diminished the burden of it by a feather-weight. The question, therefore, seems,—though not, I think, quite correctly,—to be one which is wholly, as it were, within the frontiers of theology, and which theologians may, therefore, be left to deal with as best they may, undisturbed by any arguments supplied by science. If this be not in theory strictly true, it is in practice but little wide of the mark. The facts which raise the problem in its acutest form belong, indeed, to that portion of the experience of life which is the common property of science and theology; but theology is much more deeply concerned in them than science can ever be, and has long faced the unsolved problem which they present. The weight which it has thus borne for all these centuries is not likely now to crush it; and, paradoxical though it seems, it is yet surely true, that what is a theological stumbling-block may also be a religious aid; and that it is in part the thought of ‘all creation groaning and travailing in pain together, waiting for redemption,’ which creates in man the deepest need for faith in the love of God.

448. I conceive, then, that those who talk of the ‘conflict between science and religion’ do not, as a rule, refer to the difficulty presented by the existence of Evil. Where, then, in their opinion, is the point of irreconcilable difference to be found? It will, I suppose, at once be replied, in Miracles. But though the answer has in it a measure of truth, though, without doubt, it is possible to approach the real kernel of the problem from the side of miracles, I confess this seems to me to be in fact but seldom accomplished; while the very term is more suggestive of controversy, wearisome, unprofitable, and unending, than any other in the language, Free Will alone being excepted. Into this Serbonian bog I scarcely dare ask the reader to follow me, though the adventure must, I am afraid, be undertaken if the purpose of this chapter is to be accomplished.

In the first place, then, it seems to me unfortunate that the principle of the Uniformity of Nature should so often be dragged into a controversy with which its connection is so dubious and obscure. For what do we mean by saying that Nature is uniform? We may mean, perhaps we ought to mean, that (leaving Free Will out of account) the condition of the world at one moment is so con-

nected with its condition at the next, that if we could imagine it brought twice into exactly the same position, its subsequent history would in each case be exactly the same. Now no one, I suppose, imagines that uniformity in this sense has any quarrel with miracles. If a miracle is a wonder wrought by God to meet the needs arising out of the special circumstances of a particular moment, then, supposing the circumstances were to recur, as they would if the world were twice to pass through the same phase, the miracle, we cannot doubt, would recur also. It is not possible to suppose that the uniformity of Nature thus broadly interpreted would be marred by Him on Whom Nature depends, and Who is immanent in all its changes.

449. The hurried glance which I have asked the reader to take into some obscure corners of inductive theory is by no means intended to suggest that it is as easy to believe in a miracle as not ; or even that on other grounds, presently to be referred to, miracles ought not to be regarded as incredible. But it does show, in my judgment, that no profit can yet be extracted from controversies as to the precise relation in which they stand to the Order of the world. Those engaged in these controversies have not uncommonly committed a double error. They have, in the first place, chosen to assume that we have a perfectly clear and generally accepted theory as to what is meant by the Uniformity of Nature, as to what is meant by particular Laws of Nature, as to the relation in which the particular Laws stand to the general Uniformity, and as to the kind of proof by which each is to be established. And, having committed this philosophic error, they proceed to add to it the historical error of crediting primitive theology with a knowledge of this theory, and with a desire to improve upon it. They seem to suppose that apostles and prophets were in the habit of looking at the natural world in its ordinary course, with the eyes of an eighteenth-century deist, as if it were a bundle of uniformities which, once set going, went on for ever automatically repeating themselves ; and that their message to mankind consisted in announcing the existence of another, or supernatural world, which occasionally upset one or two of these natural uniformities by means of a miracle. No such theory can be extracted from their writings, and no such theory should be read into them ; and this not merely because such an attribution is unhistorical, nor yet because there is any ground for doubting the interaction of the 'spiritual' and the 'natural' ; but because this

account of the 'natural' itself is one which, if interpreted strictly, seems open to grave philosophical objection, and is certainly deficient in philosophic proof.

The real difficulties connected with theological miracles lie elsewhere. Two qualities seem to be of their essence: they must be wonders, and they must be wonders due to the special action of Divine power; and each of these qualities raises a special problem of its own. That raised by the first is the question of evidence. What amount of evidence, if any, is sufficient to render a miracle credible? And on this, which is apart from the main track of my argument, I may perhaps content myself with pointing out that, if by evidence is meant, as it usually is, historical testimony, this is not a fixed quantity, the same for every reasonable man, no matter what may be his other opinions. It varies, and must necessarily vary, with the general views, the 'psychological climate,' which he brings to its consideration. It is possible to get twelve plain men to agree on the evidence which requires them to announce from the jury box a verdict of guilty or not guilty, because they start with a common stock of presuppositions, in the light of which the evidence submitted to them may, without preliminary discussion, be interpreted. But when, as in the case of theological miracles, there is no such common stock, any agreement on a verdict can scarcely be looked for. One of the jury may hold the naturalistic view of the world. To him, of course, the occurrence of a miracle involves the abandonment of the whole philosophy in terms of which he is accustomed to interpret the universe. Argument, custom, prejudice, authority—every conviction-making machine, rational and non-rational, by which his scheme of belief has been fashioned—conspire to make this vast intellectual revolution difficult. And we need not be surprised that even the most excellent evidence for a few isolated incidents is quite insufficient to effect his conversion; nor that he occasionally shows a disposition to go very extraordinary lengths in contriving historical or critical theories for the purpose of explaining such evidence away.

Another may believe in 'verbal inspiration'. To him, the discussion of evidence in the ordinary sense is quite superfluous. Every miracle, whatever its character, whatever the circumstances in which it occurred, whatever its relation, whether essential or accidental, to the general scheme of religion, is to be accepted with equal confidence, provided it be narrated in the works of inspired authors. It is written: it is therefore true. And in the light of this presup-

position alone must the results of any merely critical or historical discussion be finally judged.

A third of our supposed jurymen may reject both naturalism and verbal inspiration. He may appraise the evidence alleged in favour of 'Wonders due to the special action of Divine power' by the light of an altogether different theory of the world and of God's action therein. He may consider religion to be as necessary an element in any adequate scheme of belief as science itself. Every event, therefore, whether wonderful or not, a belief in whose occurrence is involved in that religion, every event by whose disproof the religion would be seriously impoverished or altogether destroyed, has behind it the whole combined strength of the system to which it belongs. It is not, indeed, believed independently of external evidence, any more than the most ordinary occurrences in history are believed independently of external evidence. But it does not require, as some people appear to suppose, the impossible accumulation of proof on proof, of testimony on testimony, before the presumption against it can be neutralised. For, in truth, no such presumption may exist at all. Strange as the miracle must seem, and inharmonious when considered as an alien element in an otherwise naturalistic setting, it may assume a character of inevitableness, it may almost proclaim aloud that thus it has occurred, and not otherwise, to those who consider it in its relation, not to the natural world alone, but to the spiritual, and to the needs of man as a citizen of both.

450. Few schemes of thought which have any religious flavour about them at all wholly exclude the idea of what I will venture to call the 'preferential exercise of Divine power,' whatever differences of opinion may exist as to the manner in which it is manifested. There are those who reject miracles but who, at least in those fateful moments when they imaginatively realise their own helplessness, will admit what in a certain literature is called a 'special Providence'. There are those who reject the notion of 'special Providence,' but who admit a sort of Divine superintendence over the general course of history. There are those, again, who reject in its ordinary shape the idea of Divine superintendence, but who conceive that they can escape from philosophic reproach by beating out the idea yet a little thinner, and admitting that there does exist somewhere a 'Power which makes for righteousness'.

For my own part, I think all these various opinions are equally open to the only form of attack which it is worth while to bring against any one of them. And if we allow, as (supposing religion in any shape to be true) we must allow, that the 'preferential action' of Divine power is possible, nothing is gained by qualifying the admission with all those fanciful limitations and distinctions with which different schools of thought have seen fit to encumber it. The admission itself, however, is one which, in whatever shape it may be made, no doubt suggests questions of great difficulty. How can the Divine Being Who is the Ground and Source of everything that is, Who sustains all, directs all, produces all, be connected more closely with one part of that which He has created than with another? If every event be wholly due to Him, how can we say that any single event, such as a miracle, or any tendency of events, such as 'making for righteousness,' is specially His? What room for difference or distinction is there within the circuit of His universal power? Since the relation between His creation and Him is throughout and in every particular one of absolute dependence, what meaning can we attach to the metaphor which represents Him as taking part with one fragment of it, or as hostile to another?

Now it has, in the first place, to be observed that ethics is as much concerned with this difficulty as theology itself. For if we cannot believe in 'preferential action,' neither can we believe in the moral qualities of which 'preferential action' is the sign; and with the moral qualities of God is bound up the fate of anything which deserves to be called morality at all. I am not now arguing that ethics cannot exist unsupported by theism. On this theme I have already said something, and shall have to say more. My present contention is, that though history may show plenty of examples in heathendom of ethical theory being far in advance of the recognised religion, it is yet impossible to suppose that morality would not ultimately be destroyed by the clearly realised belief in a God Who was either indifferent to good or inclined to evil.

For a universe in which all the power was on the side of the Creator, and all the morality on the side of creation, would be one compared with which the universe of naturalism would shine out a paradise indeed. Even the poet has not dared to represent Jupiter torturing Prometheus without the dim figure of Avenging Fate waiting silently in the background. But if the idea of an immoral Creator governing a world peopled with moral, or even with sen-

tient, creatures, is a speculative nightmare, the case is not materially mended by substituting for an immoral Creator an indifferent one. Once assume a God, and we shall be obliged, sooner or later, to introduce harmony into our system by making obedience to His will coincident with the established rules of conduct. We cannot frame our advice to mankind on the hypothesis that to defy Omnipotence is the beginning of wisdom. But if this process of adjustment is to be done consistently with the maintenance of any eternal and absolute distinction between right and wrong, then must His will be a 'good will,' and we must suppose Him to look with favour upon some parts of this mixed world of good and evil, and with disfavour upon others. If, on the other hand, this distinction seems to us metaphysically impossible; if we cannot do otherwise than regard Him as related in precisely the same way to every portion of His creation, looking with indifferent eyes upon misery and happiness, truth and error, vice and virtue, then our theology must surely drive us, under whatever disguise, to empty ethics of all ethical significance, and to reduce virtue to a colourless acquiescence in the Appointed Order.

Systems there are which do not shrink from these speculative conclusions. But their authors will, I think, be found rather among those who approach the problem of the world from the side of a particular metaphysic, than those who approach it from the side of Science. He who sees in God no more than the Infinite Substance of which the world of phenomena constitutes the accidents, or who requires Him for no other purpose than as Infinite Subject, to supply the 'unity' without which the world of phenomena would be an 'unmeaning flux of unconnected particulars,' may naturally suppose Him to be equally related to everything, good or bad, that has been, is, or can be. But I do not think that the man of science is similarly situated; for the doctrine of evolution has in this respect made a change in his position which, curiously enough, brings it closer to that occupied in this matter by theology and ethics than it was in the days when 'special creation' was the fashionable view.

I am not contending, be it observed, that evolution strengthens the evidence for theism. My point rather is, that if the existence of God be assumed, evolution does, to a certain extent, harmonise with that belief in His 'preferential action' which religion and morality alike require us to attribute to Him. For whereas the material and organic world was once supposed to have been created 'all of a piece,' and to show contrivance on the part of its Author

merely by the machine-like adjustment of its parts, so now science has adopted an idea which has always been an essential part of the Christian view of the Divine economy, has given to that idea an undreamed-of extension, has applied it to the whole universe of phenomena, organic and inorganic, and has returned it again to theology enriched, strengthened, and developed. Can we, then, think of evolution in a God-created world without attributing to its Author the notion of purpose slowly worked out; the striving towards something which is not, but which gradually becomes, and in the fullness of time will be? Surely not. But, if not, can it be denied that evolution—the evolution, I mean, which takes place in time, the natural evolution of science, as distinguished from the dialectical evolution of metaphysics—does involve something in the nature of that ‘preferential action’ which it is so difficult to understand, yet so impossible to abandon?

451. But if I confined myself to saying that the belief in a God who is not merely ‘substance,’ or ‘subject,’ but is, in Biblical language, ‘a living God,’ affords no ground of quarrel between theology and science, I should much understate my thought. I hold, on the contrary, that some such presupposition is not only tolerated, but is actually required, by science; that if it be accepted in the case of science, it can hardly be refused in the case of ethics, æsthetics, or theology; and that if it be thus accepted as a general principle, applicable to the whole circuit of belief, it will be found to provide us with a working solution of some, at least, of the difficulties with which naturalism is incompetent to deal.

452. When once we have realised the scientific truth that at the root of every rational process lies an irrational one; that reason, from a scientific point of view, is itself a natural product; and that the whole material on which it works is due to causes, physical, physiological, and social, which it neither creates nor controls, we shall (as I showed just now) be driven in mere self-defence to hold that, behind these non-rational forces, and above them, guiding them by slow degrees, and, as it were, with difficulty, to a rational issue, stands that Supreme Reason in whom we must thus believe, if we are to believe in anything.

Here, then, we are plunged at once into the middle of theology. The belief in God, the attribution to Him of reason, and of what I have called 'preferential action' in relation to the world which He has created, all seem forced upon us by the single assumption that science is not an illusion, and that, with the rest of its teaching, we must accept what it has to say to us about itself as a natural product. At no smaller cost can we reconcile the origins of science with its pretensions, or relieve ourselves of the embarrassments in which we are involved by a naturalistic theory of Nature. But evidently the admission, if once made, cannot stand alone. It is impossible to refuse to ethical beliefs what we have already conceded to scientific beliefs. For the analogy between them is complete. Both are natural products. Neither rank among their remoter causes any which share their essence. And as it is easy to trace back our scientific beliefs to sources which have about them nothing which is rational, so it is easy to trace back our ethical beliefs to sources which have about them nothing which is ethical. Both require us, therefore, to seek behind these phenomenal sources for some ultimate ground with which they shall be congruous; and as we have been moved to postulate a rational God in the interests of science, so we can scarcely decline to postulate a moral God in the interests of morality.

But, manifestly, those who have gone thus far cannot rest here. If we are to assign a 'providential' origin to the long and complex train of events which have resulted in the recognition of a moral law, we must embrace within the same theory those sentiments and influences, without which a moral law would tend to become a mere catalogue of commandments, possessed, it may be, of an undisputed authority, but obtaining on that account but little obedience. This was the point on which I dwelt at length in the first portion of this Essay. I then showed, that if the pedigrees of conscience, of our ethical ideals, of our capacity for admiration, for sympathy, for repentance, for righteous indignation, were finally to lose themselves among the accidental variations on which Selection does its work, it was inconceivable that they should retain their virtue when once the creed of naturalism had thoroughly penetrated and discoloured every mood of thought and belief. But if, deserting naturalism we regard the evolutionary process issuing in these ethical results as an instrument for carrying out a Divine purpose, the natural history of the higher sentiments is seen under a wholly different light. They

may be due, doubtless they are in fact due, to the same selective mechanism which produces the most cruel and the most disgusting of Nature's contrivances for protecting the species of some loathsome parasite. Between the two cases science cannot, and naturalism will not, draw any valid distinction. But here theology steps in, and by the conception of design revolutionises our point of view. The most unlovely germ of instinct or of appetite to which we trace back the origin of all that is most noble and of good report, no longer throws discredit upon its developed offshoots. Rather is it consecrated by them. For if, in the region of Causation, it is wholly by the earlier stages that the later are determined, in the region of Design it is only through the later stages that the earlier can be understood.

453. Naturalism, as we saw, destroys the possibility of objective beauty—of beauty as a real, persistent quality of objects; and leaves nothing but feelings of beauty on the one side, and on the other a miscellaneous assortment of objects, called beautiful in their moments of favour, by which, through the chance operation of obscure associations, at some period, and in some persons, these feelings of beauty are aroused. A conclusion of this kind no doubt leaves us chilled and depressed spectators of our own æsthetic enthusiasms. And it may be that to put the scientific theory in a theological setting, instead of in a naturalistic one, will not wholly remove the unsatisfactory effect which the theory itself may leave upon the mind. And yet it surely does something. If we cannot say that Beauty is in any particular case an 'objective' fact, in the sense in which science requires us to believe that 'mass,' for example, and 'configuration,' are 'objective' facts, we are not precluded on that account from referring our feeling of it to God, nor from supposing that in the thrill of some deep emotion we have for an instant caught a far-off reflection of Divine beauty. This is, indeed, my faith; and in it the differences of taste which divide mankind lose all their harshness. For we may liken ourselves to the members of some endless procession winding along the borders of a sunlit lake. Towards each individual there will shine along its surface a moving lane of splendour, where the ripples catch and deflect the light in his direction; while on either hand the waters, which to his neighbour's eyes are brilliant in the sun, for him lie dull and undistinguished. So may all possess a like enjoyment of loveliness. So do all owe it to one unchanging Source. And if there be an end-

less variety in the immediate objects from which we severally derive it, I know not, after all, that this should furnish any matter for regret.

454. We cannot consent to see the 'preferential working of Divine power' only in those religious manifestations which refuse to accommodate themselves to our conception (whatever that may be) of the strictly 'natural' order of the world; nor can we deny a Divine origin to those aspects of religious development which natural laws seem competent to explain.

455. Whatever difference there may be between the growth of theological knowledge and of other knowledge, their resemblances are both numerous and instructive. In both we note that movement has been sometimes so rapid as to be revolutionary, sometimes so slow as to be imperceptible. In both, that it has been sometimes an advance, sometimes a retrogression. In both, that it has been sometimes on lines permitting a long, perhaps an indefinite, development, sometimes in directions where farther progress seems barred for ever. In both, that the higher is, from the point of view of science, largely produced by the lower. In both, that, from the point of view of our provisional philosophy, the lower is only to be explained by the higher. In both, that the final product counts among its causes a vast multitude of physiological, psychological, political, and social antecedents with which it has no direct rational or spiritual affiliation.

How, then, can we most completely absorb these facts into our theory of Inspiration? It would, no doubt, be inaccurate to say that inspiration is that, seen from its Divine side, which we call discovery when seen from the human side. But it is not, I think, inaccurate to say that every addition to knowledge, whether in the individual or the community, whether scientific, ethical, or theological, is due to a co-operation between the human soul which assimilates and the Divine power which inspires. Neither acts, or, as far as we can pronounce upon such matters, could act, in independent isolation. For 'unassisted reason' is, as I have already said, a fiction; and pure receptivity it is impossible to conceive. Even the emptiest vessel must limit the quantity and determine the configuration of any liquid with which it may be filled.

456. All I wish here to insist on is, that the sphere of Divine influence in matters of belief exists as a whole, and may therefore be studied as a whole; and that, not improbably, to study it as a whole would prove no unprofitable preliminary to any examination into the character of its more important parts.

So studied, it becomes evident that Inspiration, if this use of the word is to be allowed, is limited to no age, to no country, to no people. It is required by those who learn not less than by those who teach. Wherever an approach has been made to truth, wherever any individual soul has assimilated some old discovery, or has forced the secret of a new one, there is its co-operation to be discovered. Its workings are to be traced not merely in the later development of beliefs, but far back among their unhonoured beginnings. Its aid has been granted not merely along the main line of religious progress, but in the side-alleys to which there seems no issue. Are we, for example, to find a full measure of inspiration in the highest utterances of Hebrew prophet or psalmist, and to suppose that the primitive religious conceptions common to the Semitic race had in them no touch of the Divine? Hardly, if we also believe that it was these primitive conceptions which the 'Chosen People' were divinely ordained to purify, to elevate, and to expand until they became fitting elements in a religion adequate to the necessities of a world. Are we, again, to deny any measure of inspiration to the ethico-religious teaching of the great Oriental reformers, because there was that in their general systems of doctrine which prevented, and still prevents, these from merging as a whole in the main stream of religious advance? Hardly, unless we are prepared to admit that men may gather grapes from thorns or figs from thistles. These things assuredly are of God; and whatever be the terms in which we choose to express our faith, let us not give colour to the opinion that His assistance to mankind has been narrowed down to the sources, however unique, from which we immediately, and consciously, draw our own spiritual nourishment.

457. Now, that there may be, or, rather, plainly are, many modes in which belief is assisted by Divine co-operation I have already admitted. That the word 'inspiration' may, with advantage, be confined to one or more of these I do not desire to deny. It is a question of theological phraseology, on which I am not competent to pronounce; and if I have seized upon the word for the purposes

of my argument, it is with no desire to confound any distinction which ought to be preserved, but because there is no other term which so pointedly expresses that Divine element in the formation of beliefs on which it was my business to lay stress. This, if my theory be true, does, after all, exist, howsoever it may be described, to the full extent which I have indicated; and though the beliefs which it assists in producing differ infinitely from one another in their nearness to absolute truth, the fact is not disguised, nor the honour due to the most spiritually perfect utterances in aught imperilled, by recognising in all some marks of Divine intervention.

458. What I have so far tried to establish is this—that the great body of our beliefs, scientific, ethical, theological, form a more coherent and satisfactory whole if we consider them in a Theistic setting, than if we consider them in a Naturalistic one. The further question, therefore, inevitably suggests itself. Whether we can carry the process a step further, and say that they are more coherent and satisfactory if considered in a Christian setting than in a merely Theistic one?

The answer often given is in the negative. It is always assumed by those who do not accept the doctrine of the Incarnation, and it is not uncommonly conceded by those who do, that it constitutes an additional burden upon faith, a new stumbling-block to reason. And many who are prepared to accommodate their beliefs to the requirements of (so-called) 'Natural Religion,' shrink from the difficulties and perplexities in which this central mystery of Revealed Religion threatens to involve them. But what are these difficulties? Clearly they are not scientific. We are here altogether outside the region where scientific ideas possess any worth, or scientific categories claim any authority. It may be a realm of shadows, of empty dreams, and vain speculations. But whether it be this, or whether it be the abiding-place of the highest Reality, it evidently must be explored by methods other than those provided for us by the accepted canons of experimental research. Even when we are endeavouring to comprehend the relation of our own finite personalities to the material environment with which they are so intimately connected, we find, as we have seen, that all familiar modes of explanation break down and become meaningless. Yet we certainly exist, and presumably we have bodies. If, then, we cannot devise formulæ which shall elucidate the familiar mystery of our daily exis-

tence, we need neither be surprised nor embarrassed if the unique mystery of the Christian faith refuses to lend itself to inductive treatment.

But though the very uniqueness of the doctrine places it beyond the ordinary range of scientific criticism, the same cannot be said for the historical evidence on which, in part at least, it rests. Here, it will perhaps be urged, we are on solid and familiar ground. We have only got to ignore the arbitrary distinction between 'sacred' and 'secular,' and apply the well-understood methods of historic criticism to a particular set of ancient records in order to extract from them all that is necessary to satisfy our curiosity. If they break down under cross-examination, we need trouble ourselves no further about the metaphysical dogmas to which they point. No immunity or privilege claimed for the subject-matter of belief can extend to the merely human evidence adduced in its support ; and as in the last resort the historical element in Christianity does evidently rest on human testimony, nothing can be simpler than to subject this to the usual scientific tests, and accept with what equanimity we may any results which they elicit.

459. Without taking any very deep plunge into the philosophy of historical criticism, we may easily perceive that our judgment as to the truth or falsity of any particular historic statement depends, partly on our estimate of the writer's trustworthiness, partly on our estimate of his means of information, partly on our estimate of the intrinsic probability of the facts to which he testifies. But these things are not 'independent variables,' to be measured separately before their results are balanced and summed up. On the contrary, it is manifest that, in many cases, our opinion on the trustworthiness and competence of the witnesses is modified by our opinion as to the inherent likelihood of what they tell us ; and that our opinion as to the inherent likelihood of what they tell us may depend on considerations with respect to which no historical method is able to give us any conclusive information. In most cases, no doubt, these questions of antecedent probability have to be themselves decided solely, or mainly, on historic grounds, and, failing anything more scientific, by a kind of historic instinct. But other cases there are, though they be rare, to whose consideration we must bring larger principles, drawn from a wider theory of the world ; and among these should

be counted as first, both in speculative interest and in ethical importance, the early records of Christianity.

That this has been done, and, from their own point of view, quite rightly done, by various destructive schools of New Testament criticism, every one is aware. Starting from a philosophy which forbade them to accept much of the substance of the Gospel narrative, they very properly set to work to devise a variety of hypotheses which would account for the fact that the narrative, with all its peculiarities, was nevertheless there. Of these hypotheses there are many, and some of them have occasioned an admirable display of erudite ingenuity, fruitful of instruction from every point of view, and for all time. But it is a great, though common, error to describe these learned efforts as examples of the unbiassed application of historic methods to historic documents. It would be more correct to say that they are endeavours, by the unstinted employment of an elaborate critical apparatus, to force the testimony of existing records into conformity with theories on the truth or falsity of which it is for philosophy, not history, to pronounce.

460. If we are to possess a practical system, which shall not merely tell men what they ought to do, but assist them to do it ; still more, if we are to regard the spiritual quality of the soul as possessing an intrinsic value not to be wholly measured by the external actions to which it gives rise, much more than this will be required. It will not only be necessary to claim the assistance of those ethical aspirations and ideals which are not less effectual for their purpose though nothing corresponding to them should exist, but it will also be necessary, if it be possible, to meet those ethical needs which must work more harm than good unless we can sustain the belief that there is somewhere to be found a Reality wherein they can find their satisfaction.

These are facts of moral psychology which, thus broadly stated, nobody, I think, will be disposed to dispute, although the widest differences of opinion may and do prevail as to the character, number, and relative importance of the ethical needs thus called into existence by ethical commands. It is further certain, though more difficulty may be felt in admitting it, that these needs can be satisfied in many cases but imperfectly, in some cases not at all, without the aid of theology and of theological sanctions. One commonly recognised ethical need, for example,

is for harmony between the interests of the individual and those of the community. In a rude and limited fashion, and for a very narrow circle of ethical commands, this is deliberately provided by the prison and the scaffold, the whole machinery of the criminal law. It is provided, with less deliberation, but with greater delicacy of adjustment, and over a wider area of duty, by the operation of public opinion. But it can be provided, with any approach to theoretical perfection, only by a future life, such as that which is assumed in more than one system of religious belief.

461. If the reality of scientific and of ethical knowledge forces us to assume the existence of a rational and moral Deity, by whose preferential assistance they have gradually come into existence, must we not suppose that the Power which has thus produced in man the knowledge of right and wrong, and has added to it the faculty of creating ethical ideals, must have provided some satisfaction for the ethical needs which the historical development of the spiritual life has gradually called into existence?

Manifestly the argument in this shape is one which must be used with caution. To reason purely *a priori* from our general notions concerning the working of Divine Providence to the reality of particular historic events in time, or to the prevalence of particular conditions of existence through eternity, would imply a knowledge of Divine matters which we certainly do not possess, and which, our faculties remaining what they are, a revelation from Heaven could not, I suppose, communicate to us. My contention, at all events, is of a much humbler kind. I confine myself to asking whether, in a universe which, by hypothesis, is under moral governance, there is not a presumption in favour of facts or events which minister, if true, to our highest moral demands? and whether such a presumption, if it exists, is not sufficient, and more than sufficient, to neutralise the counter-presumption which has uncritically governed so much of the criticism directed in recent times against the historic claims of Christianity? For my own part, I cannot doubt that both these questions should be answered in the affirmative; and if the reader will consider the variety of ways by which Christianity is, in fact, fitted effectually to minister to our ethical needs, I find it hard to believe that he will arrive at any different conclusion.

462. Among the needs ministered to by Christianity, are some which increase rather than diminish with the growth of knowledge and the progress of science; and this Religion is therefore no mere reform, appropriate only to a vanished epoch in the history of culture and civilisation, but a development of theism now more necessary to us than ever.

I am aware, of course, that this may seem in strange discord with opinions very commonly held. There are many persons who suppose that, in addition to any metaphysical or scientific objections to Christian doctrines, there has arisen a legitimate feeling of intellectual repulsion to them, directly due to our more extended perception of the magnitude and complexity of the material world. The discovery of Copernicus, it has been said, is the death-blow to Christianity: in other words, the recognition by the human race of the insignificant part which they and their planet play in the cosmic drama renders the Incarnation, as it were, intrinsically incredible. This is not a question of logic, or science, or history. No criticism of documents, no haggling over 'natural' or 'supernatural,' either creates the difficulty or is able to solve it. For it arises out of what I may almost call an æsthetic sense of disproportion. "What is man, that Thou art mindful of him; and the son of man, that Thou visitest him?" is a question charged by science with a weight of meaning far beyond what it could have borne for the poet whose lips first uttered it. And those whose studies bring perpetually to their remembrance the immensity of this material world, who know how brief and how utterly imperceptible is the impress made by organic life in general, and by human life in particular, upon the mighty forces which surround them, find it hard to believe that on so small an occasion this petty satellite of no very important sun has been chosen as the theatre of an event so solitary and so stupendous.

Reflection, indeed, shows that those who thus argue have manifestly permitted their thoughts about God to be controlled by a singular theory of His relations to man and to the world, based on an unbalanced consideration of the vastness of Nature. They have conceived Him as moved by the mass of His own works; as lost in spaces of His own creation. Consciously or unconsciously, they have fallen into the absurdity of supposing that He considers His creatures, as it were, with the eyes of a contractor or a politician; that He measures their value according to their physical or intellectual importance; and that He sets store by the number of square

miles they inhabit or the foot-pounds of energy they are capable of developing. In truth, the inference they should have drawn is of precisely the opposite kind. The very sense of the place occupied in the material universe by man the intelligent animal, creates in man the moral being a new need for Christianity, which, before science measured out the heavens for us, can hardly be said to have existed. Metaphysically speaking, our opinions on the magnitude and complexity of the natural world should, indeed, have no bearing on our conception of God's relation, either to us or to it. Though we supposed the sun to have been created some six thousand years ago, and to be 'about the size of the Peloponnesus,' yet the fundamental problems concerning time and space, matter and spirit, God and man, would not on that account have to be formally restated. But then, we are not creatures of pure reason ; and those who desire the assurance of an intimate and effectual relation with the Divine life, and who look to this for strength and consolation, find that the progress of scientific knowledge makes it more and more difficult to obtain it by the aid of any merely speculative theism. The feeling of trusting dependence which was easy for the primitive tribes, who regarded themselves as their God's peculiar charge, and supposed Him in some special sense to dwell among them, is not easy for us ; nor does it tend to become easier. We can no longer share their naïve anthropomorphism. We search out God with eyes grown old in studying Nature, with minds fatigued by centuries of metaphysic, and imaginations glutted with material infinities. It is in vain that we describe Him as immanent in creation, and refuse to reduce Him to an abstraction, be it deistic or be it pantheistic. The overwhelming force and regularity of the great natural movements dull the sharp impression of an ever-present Personality deeply concerned in our spiritual well-being. He is hidden, not revealed, in the multitude of phenomena, and as our knowledge of phenomena increases, He retreats out of all realised connection with us farther and yet farther into the illimitable unknown.

Then it is that, through the aid of Christian doctrine, we are saved from the distorting influences of our own discoveries. The Incarnation throws the whole scheme of things, as we are too easily apt to represent it to ourselves, into a different and far truer proportion. It abruptly changes the whole scale on which we might be disposed to measure the magnitudes of the universe. What we should otherwise think great, we now perceive to be relatively small. What we should otherwise think trifling, we now know to be im-

measurably important. And the change is not only morally needed, but is philosophically justified. Speculation by itself should be sufficient to convince us that, in the sight of a righteous God, material grandeur and moral excellencies are incommensurable quantities ; and that an infinite accumulation of the one cannot compensate for the smallest diminution of the other. Yet I know not whether, as a theistic speculation, this truth could effectually maintain itself against the brute pressure of external Nature. In the world looked at by the light of simple theism, the evidences of God's material power lie about us on every side, daily added to by science, universal, overwhelming. The evidences of His moral interest have to be anxiously extracted, grain by grain, through the speculative analysis of our moral nature. Mankind, however, are not given to speculative analysis ; and if it be desirable that they should be enabled to obtain an imaginative grasp of this great truth ; if they need to have brought home to them that, in the sight of God, the stability of the heavens is of less importance than the moral growth of a human spirit, I know not how this end could be more completely attained than by the Christian doctrine of the Incarnation.

463. Of all creeds, materialism is the one which, looked at from the inside—from the point of view of knowledge and the knowing Self—is least capable of being philosophically defended, or even coherently stated. Nevertheless, the burden of the body is not, in practice, to be disposed of by any mere process of critical analysis. From birth to death, without pause or respite, it encumbers us on our path. We can never disentangle ourselves from its meshes, nor divide with it the responsibility for our joint performances. Conscience may tell us that we *ought* to control it, and that we *can*. But science, hinting that, after all, we are but its product and its plaything, receives ominous support from our experiences of mankind. Philosophy may assure us that the account of body and mind given by materialism is neither consistent nor intelligible. Yet body remains the most fundamental and all-pervading fact with which mind has got to deal, the one from which it can least easily shake itself free, the one that most complacently lends itself to every theory destructive of high endeavour.

464. What we need, then, is something that shall appeal

to men of flesh and blood, struggling with the temptations and discouragements which flesh and blood is heir to ; confused and baffled by theories of heredity ; sure that the physiological view represents at least one aspect of the truth ; not sure how any larger and more consoling truth can be welded on to it ; yet swayed towards the materialist side less, it may be, by materialist reasoning than by the inner confirmation which a humiliating experience gives them of their own subjection to the body.

What support does the belief in a Deity ineffably remote from all human conditions bring to men thus hesitating whether they are to count themselves as beasts that perish, or among the sons of God ? What bridge can be found to span the immeasurable gulf which separates Infinite Spirit from creatures who seem little more than physiological accidents ? What faith is there, other than the Incarnation, which will enable us to realise that, however far apart, they are not hopelessly divided ? The intellectual perplexities which haunt us in that dim region where mind and matter meet may not be thus allayed. But they who think with me that, though it is a hard thing for us to believe that we are made in the likeness of God, it is yet a very necessary thing, will not be anxious to deny that an effectual trust in this great truth, a full satisfaction of this ethical need, are among the natural fruits of a Christian theory of the world.

465. I have already said something about what is known as the 'problem of evil,' and the immemorial difficulty which it throws in the way of a completely coherent theory of the world on a religious or moral basis. I do not suggest now that the Doctrine of the Incarnation supplies any philosophic solution of this difficulty. I content myself with pointing out that the difficulty is much less oppressive under the Christian than under any simpler form of Theism ; and that though it may retain undiminished whatever speculative force it possesses, its moral grip is loosened, and it no longer parches up the springs of spiritual hope or crushes moral aspiration.

For where precisely does the difficulty lie ? It lies in the supposition that an all-powerful Deity has chosen out of an infinite, or at least an unknown, number of possibilities to create a world in which pain is a prominent, and apparently an ineradicable, element. His action on this view is, so to speak, gratuitous. He might have done

otherwise; He has done thus. He might have created sentient beings capable of nothing but happiness; He has in fact created them prone to misery, and subject by their very constitution and circumstances to extreme possibilities of physical pain and mental affliction. How can One of Whom this can be said excite our love? How can He claim our obedience? How can He be a fitting object of praise, reverence, and worship? So runs the familiar argument, accepted by some as a permanent element in their melancholy philosophy; wrung from others as a cry of anguish under the sudden stroke of bitter experience.

This reasoning is in essence an explication of what is supposed to be involved in the attribute of Omnipotence; and the sting of its conclusion lies in the inferred indifference of God to the sufferings of His creatures. There are, therefore, two points at which it may be assailed. We may argue, in the first place, that in dealing with subjects so far above our reach, it is in general the height of philosophic temerity to squeeze out of every predicate the last significant drop it can apparently be forced to yield; or drive all the arguments it suggests to their extreme logical conclusions. And, in particular, it may be urged that it is erroneous, perhaps even unmeaning, to say that the universality of Omnipotence includes the power to do that which is irrational; and that, without knowing the Whole, we cannot say of any part whether it is rational or not.

These are metaphysical considerations which, so long as they are used critically, and not dogmatically, negatively, not positively, seem to me to have force. But there is a second line of attack, on which it is more my business to insist. I have already pointed out that ethics cannot permanently flourish side by side with a creed which represents God as indifferent to pain and sin; so that, if our provisional philosophy is to include morality within its circuit (and what harmony of knowledge would that be which did not?), the conclusions which apparently follow from the co-existence of Omnipotence and of Evil are not to be accepted. Yet this speculative reply is, after all, but a fair-weather argument; too abstract easily to move mankind at large, too frail for the support, even of a philosopher, in moments of extremity. Of what use is it to those who, under the stress of sorrow, are permitting themselves to doubt the goodness of God, that such doubts must inevitably tend to wither virtue at the root? No such conclusion will frighten them. They have already almost reached it. Of what worth, they cry, is virtue in a world where sufferings like theirs fall alike on the just and on the

unjust? For themselves, they know only that they are solitary and abandoned; victims of a Power too strong for them to control, too callous for them to soften, too far for them to reach, deaf to supplication, blind to pain. Tell them, with certain theologians, that their misfortunes are explained and justified by an hereditary taint; tell them, with certain philosophers, that, could they understand the world in its completeness, their agony would show itself an element necessary to the harmony of the Whole, and they will think you are mocking them. Whatever be the worth of speculations like these, it is not in the moments when they are most required that they come effectually to our rescue. What is needed is such a living faith in God's relation to Man as shall leave no place for that helpless resentment against the appointed Order so apt to rise within us at the sight of undeserved pain. And this faith is possessed by those who vividly realise the Christian form of Theism. For they worship One Who is no remote contriver of a universe to whose ills He is indifferent. If they suffer, did He not on their account suffer also? If suffering falls not always on the most guilty, was He not innocent? Shall they cry aloud that the world is ill-designed for their convenience, when He for their sakes subjected Himself to its conditions? It is true that beliefs like these do not in any narrow sense resolve our doubts nor provide us with explanations. But they give us something better than many explanations. For they minister, or rather the Reality behind them ministers, to one of our deepest ethical needs: to a need which, far from showing signs of diminution, seems to grow with the growth of civilisation, and to touch us ever more keenly as the hardness of an earlier time dissolves away.

466. Whatever be the particular weaknesses and defects which mar the success of my endeavours, three or four broad principles emerge from the discussion, the essential importance of which I find it impossible to doubt, whatever errors I may have made in their application.

1. It seems beyond question that any system which, with our present knowledge, and, it may be, our existing faculties, we are able to construct must suffer from obscurities, from defects of proof, and from incoherences. Narrow it down to bare science—and no one has seriously proposed to reduce it further—you will still find all three, and in plenty.

2. No unification of belief of the slightest theoretical value can take place on a purely scientific basis—on a basis, I mean, of induction from particular experiences, whether ‘external’ or ‘internal’.

3. No philosophy or theory of knowledge (epistemology) can be satisfactory which does not find room within it for the quite obvious, but not sufficiently considered fact that, so far as empirical science can tell us anything about the matter, most of the proximate causes of belief, and all its ultimate causes, are non-rational in their character.

4. No unification of beliefs can be practically adequate which does not include ethical beliefs as well as scientific ones ; nor which refuses to count among ethical beliefs, not merely those which have immediate reference to moral commands, but those also which make possible moral sentiments, ideals, and aspirations, and which satisfy our ethical needs. Any system which, when worked out to its legitimate issues, fails to effect this object can afford no permanent habitation for the spirit of man.

467. The change of view which I have endeavoured to indicate is purely scientific, but its consequences cannot be confined to science. How will they manifest themselves in other regions of human activity—in Literature, in Art, in Religion? The subject is one rather for the lecturer on the twentieth century than for the lecturer on the nineteenth. I at least cannot endeavour to grapple with it. But before concluding, I will ask one question about it and hazard one prophecy. My question relates to Art. We may, I suppose, say that artistic feeling constantly expresses itself in the vivid presentation of sensuous fact and its remote emotional suggestion. Will it in time be dulled by a theory of the world which carries with it no emotional suggestion, which is perpetually merging the sensuous fact in its physical explanation, whose main duty indeed it is to tear down the cosmic scene-painting and expose the scaffolding and wheelwork by which the world of sense-perception is produced? I do not know. I do not hazard a conjecture. But the subject is worth consideration.

So much for my question. My prophecy relates to Religion. We have frequently seen in the history of thought that any development of the mechanical conception of the physical world gives an impulse to materialistic speculation. Now, if the goal to which, consciously or unconsciously, the modern physicist is pressing, be

ever reached, the mechanical view of things will receive an extension and a completeness never before dreamed of. There would then in truth be only one natural science, namely, physics ; and only one kind of explanation, namely, the dynamic. If any other science claimed a separate existence it could only be because its work was as yet imperfectly performed, because it had not as yet pressed sufficiently far its analysis of cause and effect. Would this conception, in its turn, foster a new and refined materialism ? For my own part I conjecture that it would not. I believe that the very completeness and internal consistency of such a view of the physical world would establish its inadequacy. The very fact that within it there seemed no room for Spirit would convince mankind that Spirit must be invoked to explain it. I know not how the theoretic reconciliation will be effected ; for I mistrust the current philosophical theories upon the subject. But that in some way or other future generations will, each in its own way, find a practical *modus vivendi* between the natural and the spiritual I do not doubt at all ; and if, a hundred years hence, some lecturer, whose parents are not yet born, shall discourse to your successors in this place on the twentieth century, it may be that he will note the fact that, unlike their forefathers, men of his time were no longer disquieted by the controversies once suggested by that well-worn phrase "the conflict between Science and Religion". . . . [1900.]

468. I welcome this opportunity, brief though it is, of saying something upon the matter, for I have in the course of my own lifetime seen what I conceive to be a great change passing over the thinking portion of mankind upon this very subject. I remember when it was universally thought by a large school that there was a fundamental conflict between the religious aspect of the world and the scientific aspect, that naturalism was to be taken or rejected, and that any compromise between naturalism or a scientific view of the world—and the two things, though very different, were confused by the thinkers of whom I speak—and the aspect of the world which we may call religious, was impossible. The persons of whom I speak, of whom there are still many representatives among us, imagined that science was founded upon experience and induction ; that religion represented the last dying phase of a history which went back and was lost among the early and savage superstitions of mankind : and they further supposed that while intelligent persons holding religious beliefs made a kind of compromise between the most recent teaching of science and the modified religion which they thought they could defend, such compromises were doomed to early extinction, that the sphere of

science ate into the sphere of religion as the ocean gradually eats into some coastline, and though a retaining wall might be erected here or there, the ultimate result was inevitable and could easily be foreseen, a result which would compel us to look out upon the universe of which mankind is the temporary and fleeting citizen as a merely mechanical set of causes and effects, owning no intelligent creator, having no moral purpose, leading to no great end. For my own part I believe that view, however widely it may yet be held among certain sections of our fellow-countrymen, is not the view which is gaining ground either among philosophers or among men of science ; that it is already antiquated, that it belongs to the past ; and that it is not destined, among the many problems which are destined, to weigh upon the Christian conscience and call for Christian effort. This problem is not one which will long survive to trouble us. I do not, of course, mean that the growth of scientific knowledge, of history, of philology, of anthropology, of the vast accumulation of learning which the last two generations have given to the world has no effect upon the mode in which religious men and Christians hold their beliefs ; on the contrary, the effect is manifest. If we suppose a theologian of the twentieth century discussing these questions with a theologian of the sixteenth century—they might both belong to the same Church, both honestly subscribe to the same symbols, both look forward to the same hopes, both share the same faith—do we not all know that the language in which they would speak to each other upon some aspects of religion would be widely divergent ? [1908.]

469. The issue I wish to put before you is this. Has the growth of science, or has it not, made it easier to believe that the world had a rational and benevolent Creator, or has it rendered that belief entirely superfluous—to be added, if you please, by the theist or the deist, but an addition in any case superfluous and wholly unfounded upon any rational or philosophic ground ? I think the progress of thought has been in the direction that we all in this great hall desire. Consider the old argument from design. But that argument from design was based mainly on the fact that material nature was orderly, was uniform, showed the marks, as Maxwell said of the atom, the marks of having been manufactured, of having come out of one mould, or having been designed by one mind. But the real strength of that argument from design rested upon adaptation between the living animals, whether man or the lower animals, and the mechanical world which they inhabited. The religious philosopher said : ‘ Can you suppose that animals would be created so happily adapted to their surroundings unless created by an intelligent Creator, could that be the result of chance, due to a fortuitous concurrence of atoms ? ’ And the argument seemed extremely strong. But then came natural selection, then came the Darwinian doctrine, which indicated that all these wonderful

adaptations were explained, or were explainable, by an action between the living organism and its environment, and that what had been supposed to be due to design, really had nothing in it of final causes, but was due to action and interaction of the living organism with its dead environment. And that discovery gave great pain, caused profound perturbation in the minds of vast numbers of those who were told that the discoveries of science were inconsistent with the fundamental truths of religion : and I am not surprised, because I think that argument from design, though I should hesitate to say it was worthless, had lost much of its old efficacy in the stress of recent biological discoveries.

But there is one thing, one phenomenon, one fact perhaps I ought to say, which wholly escapes this criticism, and that fact is the existence of reason. Now, if we all look at the Universe simply from the naturalistic point of view, what is reason ? Reason is nothing more than one among many of the expedients by which Nature has blindly adapted a very small and numerically insignificant number of living organisms to adapt themselves somewhat better to the surroundings into which they are born. That is all that naturalism can say of human reason. It is the only account it can give of the existence upon this planet of *homo sapiens*. But it is an utterly inadequate reason—and its inadequacy must be evident to the man of science himself—on this ground, that if reason be really only the product of irrational and mechanical causes going back to some illimitable past, reaching forward to some illimitable future, and, accidentally, in the course of that endless chain producing for a brief moment in the history of the Universe a few individuals capable of understanding the world in which they live, what confidence can you place in reason if you use it for any purpose beyond the merely life-preserving or race-preserving qualities for which alone, on this theory, it was brought into existence ? And yet, every day some new scientific discovery carries us further and further from the petty world in which we live, and teaches us to reinterpret the material surroundings in which we find ourselves ; so that the very experience by which we direct our daily lives in the eye of science is the coarsest and crudest symbolism of reality. Is the reason which has reached, and is reaching more and more, these conclusions, is it a reason to be trusted or to be spurned ? If it is to be spurned, the fabric of science falls with the reason which creates it. If you take the other alternative, and say that we are indeed the possessors of powers far in excess of, or used for, purposes far outside those for which that reason was called into existence, if we are to regard ourselves as rational beings understanding a rational world, I ask you : Can we believe that that reason is purely the product of merely mechanical forces, of gases, coalescing, of worlds forming, of unknown combinations of organic particles, of the creation by some process hitherto undreamed of, of life which has gradually worked up through every species of lower and irrational organism to the reason which now reaches out beyond the furthest star ? That is a conclusion which, I think, is wholly

impossible ; and the contrary inference, the inference to which I ask your assent, though I know it to be given already, is an inference to which more and more science and philosophy are driving us, and making an apologetic for a theistic and religious view of the world undreamed of in the time when the human outlook was narrowed by its ignorance of the material Universe.

Briefly, and most imperfectly, I have attempted to lay before you one argument, not perhaps very easy of comprehension, but leading up, as I think, to a conclusion absolutely necessary if we are to be saved from a hopeless pessimism. For my own part I cannot conceive human society permanently deprived of the religious element ; and, on the other hand, I look to science far more than to the work of statesmen or to the creation of constitutions, or to the elaboration of social systems, or to the study of sociology, I look to science more than anything else as the great ameliorator of the human lot in the future. If I had to believe that those two great powers were, indeed, in immutable and perpetual antagonism, it would be impossible for me to avoid that hopeless despair which makes effort impossible, which deprives labour of all its fruit for the future, whether we live to see it or not, which makes the travail and struggle of mankind for the happy and better conditions of society utterly beyond any reasonable expectations that we could form ; and I at least should hardly think it worth while to spend effort to waste time in doing that which I know would be a fruitless task—namely, to make a race such as we are, men such as ourselves, the forefathers of future generations who are to attempt the impossible task of either abandoning all religious outlook upon the world or of rejecting all ministrations of that science which more and more I am driven to believe is the greatest mundane agent for good. . . . [1908.]

Scotland.

470. Another telegram arrives from nearer home ; that remarkable man, Professor Blackie, who is, it appears, presiding over some such dinner of such Scotchmen as we have here to-night in the city of Bradford, telegraphs as follows : " God bless you all ; with three cheers for John Knox and Jenny Geddes ". Such a telegram compels a comparison between this age and the age near about the time when this Society was founded. I believe the Society was founded about 1613, and I believe the gentleman who first obtained a charter for it was the Duke of Lauderdale, in Charles the Second's reign some fifty years later. What would the Duke have thought of a telegram which announced that three cheers were to be given for John Knox and for Jenny Geddes ? I think he would probably put some of us in the boot for such a proceeding as that. But the truth is that nothing is more astonishing, and nothing would cause more astonishment to us, if we were not familiar with it, than the astonishing change that has come over the relations between Scotland and England since the year 1613, when this Society was founded. At that time we Scotchmen were looked upon as needy adventurers, speaking a strange and uncouth tongue, coming from a barren country, after James the Sixth, seeking for fortune in southern lands. Real amity between the two nations, accidentally associated by a dynastic alliance, was not then thought possible, and might have seemed to those who lived at that time to be for ever impossible. Just conceive what the state of things was. Every glorious event in the annals of Scotland was a victory over England. The whole policy of Scotland had been dominated by animosity to England. Its one ally was France, and France was its ally because France was chronically hostile to England. There may have been men present at that meeting in 1613, when this Society was founded, whose fathers fought at Pinkie, and whose sons may have perished at Dunbar. Conceive the change that has come over this island since then. Imagine now the feelings of our ancestors, could they be present with us to-night, and see a united people from one end of the island to the other, in whose breasts the memory of Bannockburn and Flodden arouses no bitterness of feeling, but serves merely as a colouring for romance. That union of feeling, of sympathy, of a common patriotism, has been accomplished, and it never, never can be destroyed.

[1886.]

471. We Scotchmen have always succeeded in doing what constituent elements of other great Empires have not succeeded in doing—namely, combining into a perfect whole our loyalty to that great community of which we form a part, and what I may describe as that lesser loyalty to that Scotland to which we all belong, and to whose traditions we are profoundly attached. You can have no distinction between the feeling which a Scotchman has for Scotland and the feeling he has for that Empire of which Scotland is no small part. Each reacts upon the other, each moves the other, and turns it into a motive for ever more strenuous efforts for the great cause in which both Scotland and the Empire are interested. Thus it is that, while Scotchmen are serving the Empire in all parts of the world, they yet turn with undiminished feelings of love and affection to that relatively minute geographical area, the smallest portion of our island, whose influence extends from one end of the earth to the other. They turn to that part and feel that all their love and all their loyalty of Scotland make them all serve their country in the British Empire with ever more fervent devotion. . . . [1896.]

472. I do not suppose that history shows us a country in which there have been greater changes in the last 150 or 200 years—ever since, let us say, to choose a date—ever since the union with England—I do not believe history shows a country which in that period of time has undergone a greater or a more beneficent series of social revolutions, and in which from its earliest to its latest phase has been that deep-seated religious feeling so eminently characteristic of the Scottish nation. It has gone through many changes, it has shown itself in many forms, some beyond all praise, and others, which it is easy for the historian sitting at his ease in his study to criticise, or, if you will, condemn; but, in whatever form, that religious feeling has been there, mixing with, elevating and raising to a higher sphere those practical instincts which have made their mark in every corner of the world. Are we going to allow this great heritage to diminish and fade away? Shall we have to admit at the end of our lives that we leave Scotland less religious than we found it? That this great element of national well-being and of spiritual excellence has diminished and waned under the light of modern civilisation and modern education? I trust not; I pray not. Nor do I think that we need have any deep-seated misgivings upon this subject. The very presence here of this vast gathering, pledged by their presence to further the ends for which the meeting is called, is surely an indication that in Glasgow, at all events, the cause of religion still moves the heart of the present population as it moved the hearts of their fathers or their grandfathers before them. . . . [1901.]

473. Our Scottish theory—never formulated so far as I remember, but

very effectively carried out for certainly more than a hundred and fifty years—is that every country has need of Scotchmen, but that Scotland has no need of the citizens of any other country. I do not know that it is a bad theory, broadly speaking, and I do not know that it has worked, broadly speaking, ill in practice. There are brilliant exceptions, and our guest of this evening is one of the most brilliant. But there is no doubt that for every duty in life above the grade of inexpert labour we do think in Scotland that on the whole we are more useful to others than they can be to us, and the stream, the movement of population, is as continuous from Scotland to the outer world as is the stream of ocean from the Euxine Sea through the Bosphorus into the wider ocean. There is no return current, except, indeed, when Scotchmen have made their fortunes. But there is no migration for those nobler phases of civilisation into our country, so far as I know, on any large scale, from other regions of the earth, be they what they may. And, therefore, when I remember that Mr. Butcher is an Irishman by birth, that he is by education a Cambridge man, and that his earlier sphere of teaching was in Oxford, I feel that he has shown, and must have shown, gifts of sympathy, gifts of ability, gifts of culture far above the average when he has made himself a place in our hearts similar to that which he undoubtedly occupies. . . . My sole object is to put in the highest relief in my power the merits and the virtues of him whom we have met here to-day to honour. Because I admit that if the great works of genius which classical antiquity has left us were always taught to British students as he has taught them here; if all classical teachers were inspired by his enthusiasm, by his knowledge, by his powers of sympathy; if they could all demonstrate, as he has demonstrated, that knowledge of the dead languages may be accompanied with the most admirable gift of using living languages; if they could show, as he can show, that these works of departed genius are an organic part, perhaps the greatest part of what the men of letters of all ages have given us for our delight; if they can show, as he has shown, to all the students who came before him what treasures are open to the man who has eyes to see and ears to hear in the works that have been left us by our predecessors; then, indeed, classical education would be what some have claimed it to be, the best of all introductions to knowledge in whatever province that knowledge was to be found. It is to Mr. Butcher, first as the personal friend of all present, secondly as one of the most distinguished Professors of this great University, thirdly as a most brilliant and sympathetic exponent of classical learning and the methods of teaching to men in the twentieth century what was done and thought four hundred years before Christ was born—it is to Mr. Butcher in all these capacities that I ask you with all the enthusiasm with which friendship and affection can inspire you, to drink his health on the present occasion. . [1904.]

of Scotland can be otherwise than a great honour to any man, be he whom he may, or however his nationality may be separated from our own ; but to one who is himself a Scotchman, and who all his life has lived within sight of Arthur's Seat, the honour which Edinburgh has done him must appeal in a manner which nobody who is not a Scotchman and not a neighbour of your great city can adequately feel. I know not why it is that Edinburgh appeals with the special and peculiar force with which doubtless it does appeal to every man who calls himself a Scotchman. It is not merely the beauty, the unequalled beauty, of its site, great as that is, and incapable as it seems to be of being spoiled either by the efforts of the railway engineer or the suburban architect ; it certainly is not its climate, for one of the most brilliant and not the least loyal of its sons, Robert Louis Stevenson, evidently felt that even his patriotism was somewhat chilled by Princes Street in an east wind ; it is something more and above either its external advantages or its external disadvantages which touches so deeply the springs of patriotic feeling which all Scotchmen here and abroad feel for the capital of their native country : and I think the reason is partly to be found in the fact that Edinburgh, more than any other capital in the world, seems to express, doubtless in a softened and beautified form, the great characteristics of Scottish history. I say advisedly in a softened and beautified form, because, if we insist on looking in a realistic spirit at the history of our country from the time when the struggles with England first began many hundred years ago, I confess that to me it seems that it will be a tale of unutterable and impossible gloom, were it not that, like other gloomy stories, it has had a most happy and fortunate ending. We turn our eyes naturally and instinctively to the bright side of our great struggle for independence. We think, and we think rightly, chiefly of the heroic spirit of endurance which under calamities, successive and almost unbroken, enabled us to maintain against our more powerful neighbour an independence which was never crushed. But there is, and there could not but be, another side to that great history. It is impossible but that a country as small and as relatively weak as Scotland should not suffer infinite calamities by this prolonged struggle, and if we look with unshrinking eyes at the history of our country we shall be forced to admit that nowhere was feudalism more brutal, that nowhere did Western Christianity require a more drastic reformation, and that nowhere did that reformation come in a sterner guise. Even at a period later than the Reformation, when other countries, more happily situated than ourselves, were obtaining from that great change and from the humanistic developments which accompanied it, all that gives grace and strength and power to modern civilisation, we were, as we cannot truly deny, left behind in the race.

I was trying to think, in reference to this theme on which I am now addressing you, what relics there were of Scottish science, or Scottish literature in the seventeenth century—that is to say, long after the Refor-

mation had been established within these shores. I was trying to think what there was in science or in literature which any of us would care at this moment to remember. There was one great man of science, Napier of Merchiston. But putting him aside, and putting aside also such annalists as Spottiswoode at the beginning of the century, or Bishop Burnet at the end of the century—though I suppose his work really belongs to the eighteenth century—putting these aside, I really know not what there is to remember, except a record of conversations by Drummond of Hawthornden, a single lyric by the great Montrose, and one sentence of Fletcher of Saltoun. There was also—I ought not to forget it—in a century given up to theological battles, there was one Scottish theologian whose works we should not willingly let die, and yet who, strangely enough, did not, at all events in the latter part of his life, belong to the dominant religious body of his countrymen—I mean Archbishop Leighton. I know not whether anybody can add to that meagre category of Scottish performances in the seventeenth century, that meagre intellectual heritage that they have left to us. If they can, I hope they will communicate their treasure-trove to me in due season. If that be the tragic beginning and middle of our history, what I want to call your attention to is the sudden blossoming out which followed the Revolution settlement and the union with our sister kingdom. It was as some Alpine upland when the snows have disappeared bursting out into a carpet of wild and brilliant blossom; so sudden, so immediate, and so great was the change that took place. We did not love the union—we must admit that. But we used it, and we used it to the infinite advantage of Scotland and of England, and—of what is more than either Scotland and England—of the British Empire. Immediately our countrymen took their places in the true succession, in the true literary succession of British literature. Arbuthnot, Thomson the poet, flourished in the first quarter of the eighteenth century.

But it is not merely in literature, it is in every department of activity that Scotland, which had done nothing up to the eighteenth century, after the eighteenth century began seemed almost to do everything. In commerce, in banking, in farming, on the material side of life, a country whose poverty was proverbial, where whole regions were starved by successive inroads of hostile invaders, Scotland took the lead. And it took the lead in many other ways. It is curious to reflect that we gave to England the greatest Judge I think she has ever possessed—Lord Mansfield; that we gave to England the greatest advocate she has ever possessed—Lord Erskine; that we gave to England a Lord Chancellor, of whose intellectual qualifications I could say much, but on whose moral qualifications I prefer to be silent; that it was a Scotchman who was the only rival in eloquence to the elder Pitt; and that it was another Scotchman—afterwards Lord Melville—who was the right-hand man of the younger Pitt in his great Parliamentary struggles. But that is not all; that is not, indeed, nearly all. We may truly say of philosophy that with the exception—the great exception, as I

admit it to be—with the exception of Bishop Berkeley, all British philosophy in the eighteenth century was Scottish philosophy, and that the title of Britain to take its rank among the thinking nations of the world was a title which it derived rather from those who were born north of the Tweed than from those who were born south of it. As a mere curiosity it may be worth reminding you that the countrymen of Shakespeare had to come to a Scottish manse for the most successful dramatic tragedy composed in the eighteenth century; and that the countrymen of South and Tillotson had to come to another Scottish manse for their reading in sermons.

I do not wish to recall names which, though they will always retain their place in the history of our country, are relatively insignificant compared to other titles to the gratitude of Britain and the world. For, mark you, our intellectual activities did not merely burst the narrow barrier of Scotland and overspread England in that century, but within the hundred years or less which followed the Union we produced at least five names whose fame was not merely Scotch, or merely English, or merely insular, but which took their places in different departments of history and civilisation.

There was a man—I fancy some of you may never have heard of him—who was a great scientific physical chemist, nevertheless, and Professor in this city, Black; there was the great scientific engineer, Watt; there was the great philosopher, Hume; there was the great poet, Burns; and I had almost omitted one, not the least famous of the five—there was the great economist, Adam Smith. And those five names stand, and will always stand, as great land-marks in the history of human culture as men who opened new epochs, each in his respective department; will stand not merely as useful labourers in the field, but as those who guided the labours of their successors. Now, is not this one of the most remarkable and most modern changes of which national history gives any record—I at least know nothing like it. It is as sudden as the contrast between the cliffs on which the Castle stands, and the gardens of Princes Street into which they fall.

And that brings me from my long and wandering parenthesis to what I hoped would be the theme of the few remarks on which I intended to address you. What I feel is that the history, the character of which I have thus indicated to you, finds permanent expression in this city as the history of no other country finds expression in its capital. In Rome, the mistress of the world, you will find no doubt its history, but you will find it by the aid of elaborate excavation, the work of antiquaries, vast expenditure, ingenious reconstruction. Paris—which has had at least as close a connection with the history of France as had Edinburgh itself with the history of Scotland—Paris has been improved out of all recognition, so that no man visiting that great capital would be able in imagination to picture to himself what the Paris was of, let us say, Francis the First or Henry the Third or of the Fronde. It is not so with Edinburgh. Not, indeed,

by our own labours, but by the mere physical formation of the city we see the different epochs still represented before us. We see what was old and what was new. At a glance we can take in the limits and picture to ourselves the character of the old walled city, the Castle at one end of the long street, Holyrood at the other, and can without any antiquarian assistance imagine the bloody and intolerant struggles which too often disgraced our streets; and at the same time we can see the new city spread out at its feet, we can see the whole evolution of Scottish civilisation, from the time when the pre-occupation of every Scotchman was how to defend his home from the overwhelming power of his nearest neighbour till the present day, when, still dominated by the Castle, the New Town gives proof that we have joined in heart and in civilisation with our ancient antagonists, that we have learned from them all that they had to teach us, and, I would venture to say, have largely improved upon the lessons of our masters. . . . [1905.]

Sir Walter Scott.

475. If we can hardly expect that the author of "Sartor Resartus" and of the "French Revolution" should be a popular favourite and popular friend in the same sense that Burns was and is a popular friend, the case is not so easy when we come to Sir Walter Scott; for Sir Walter Scott was not only one of the greatest men of letters who have ever lived in any country, but he was also one of the best and most lovable of men who have ever adorned any society. And as time goes on, so far from his fame becoming dimmed or the knowledge of him becoming the property only of the few, it seems to me, so far as I can judge, that he is more likely to defy the ravages of time than almost any other of the writers who have adorned the present century. . . . [1897.]

476. Sir Walter Scott was not only a great poet and a great novelist, but, even apart from his originality as an author of creative imagination, he was a man of letters of no small magnitude. He would have had a place—a comparatively humble place, it may be, but still a recognised and a permanent place—among those who have interested themselves in the progress of English literature, even had he never written a single line of original verse or been the author of one of the immortal novels which have made his name famous throughout the world. Of course, it is as a novelist that Scott specially lives in the hearts of his countrymen, and as a novelist he has undoubtedly the greatest claim upon those who profess to be interested in literature. . . . [1897.]

477. The chairman has already indicated to you the justification by which I take part in the ceremony of this afternoon. He has called upon me to speak as a Scotchman and as one who was born and has lived in those regions from which Sir Walter Scott drew his inspiration, which gave the early bent to his genius, and which provided so large a material which that genius worked up into immortal stories. And yet, though Scott was essentially a Scotchman—by which I mean that his inspiration was drawn from the place of his birth and the surroundings of his childhood—we are not here simply, or even principally, to celebrate the memory of a Scotchman, but of a man of letters whose works are the heritage of the whole English-speaking race throughout the world, and who had an almost unique position even during his own lifetime upon the Continent of Europe among men of letters speaking another language than his own.

In truth, in this last respect I do not know that any English man of letters, except perhaps Byron, and Richardson the novelist, have during their own lifetime produced so great and so direct an effect upon the course of literature in other countries. It would be a curious and interesting subject of speculation, were this the time to indulge in it, to analyse the causes by which this rather peculiar result was obtained. I do not put it before you as any special mark of great literary distinction. I would only say that, if Scott possessed it, it was no doubt in part due to the fact that his great merits did not turn upon delicacies of style inappreciable even by the most accurate foreign students of our literature, but that his merit depended upon broader effects and greater issues which all were capable of understanding. I must not be supposed in these words to imply that I join myself to that mistaken band of critics—mistaken as I think them—who tell you that Scott's style ought not to be a subject of literary admiration. I take a very different view. It is true that it was always hasty, and sometimes careless; but for his purposes—the purposes which he had in view and the ends which he desired to serve—the style was admirable, and admirably married to the matter which it had to put into literary shape and to which it had to give literary currency. Yet it must be so far admitted that the merits of his style are not particularly his claim to the affectionate admiration of late posterity; that depends upon greater and larger things. In what, then, did Scott's greatness permanently consist? His greatness was due, I venture to think, to the same general cause to which all greatness is due—namely, the coincidence of special and exceptional gifts with those special and exceptional opportunities in which those gifts may have the greatest and the freest play. He reached his literary maturity when the reaction against the eighteenth century was at its height. That reaction had already acquired the domain of poetry. It had made large advances in the glorious domain of politics.

The historical movement, which has so greatly distinguished the nineteenth century, had already shown its first fruitful beginnings, and of that

historical movement Scott was the artistic representative. I do not, of course, mean to say that Scott's history was always accurate history. He took many liberties—some intentional, others unintentional—with the history of the many various periods with which he dealt and which he used as artistic material. But Sir Walter Scott had, as no man before him has ever had, and no man who comes after is ever likely to have, the power of conceiving, and making live, characters in the historic past, and making those characters organic elements in the historic setting in which he had placed them. The eighteenth century delighted in the abstract man, abstract institutions. Scott gave artistic expression to the more modern, the more concrete, and the more fruitful view which sees all institutions as the growth of an historic past, and all individuals as the creatures and the creations of the age in which they were formed; and he, and he alone, had the power of making his creations not only the vehicle for antiquarian learning, but living representatives of a long dead past—representatives the characters of which his genius was able to read in the romantic stories which are our delight, were the delight of our forefathers, and will long be the delight of the generations which will come afterwards. I am told, indeed, that the present generation do not read Scott. That is not a subject upon which I can speak with authority. Still, of course, nobody pretends that Scott has broken loose, or can break loose, from that law to which every literary author is subjected; but, while nobody pretends that his works alone, of all works of genius, are free from the limits of fashion, it still remains a fact, as far as I can judge, that the pleasure which his page still gives, not merely to the man of letters by profession, not merely to the student of literary history, but to the generally cultivated public, is undiminished, and has stood, as very few works have been able to stand, the test of time.

It may perhaps be thought that the ceremony in which we are assembled here to take part has been too long deferred. Two generations have passed since Scott sank to his rest, and it might well seem that long before the present occasion some memorial should have been raised to his memory, that he should have found his place among his great literary predecessors. The Dean has explained how this came about, and I would add that, speaking for myself, I can hardly regret the delay. Memorials are of two kinds. The most common kind—the one with which we all have sympathy—consists in the pathetic effort to preserve some recollection of a man who has done good work in his generation, to preserve something of his memory to an age and a period when that work, though not fruitless, may yet probably be forgotten. In this unequal struggle with oblivion many of us have probably taken part on other occasions. But there is another kind of memorial, of which this is one, in which we pretend not to do anything to preserve a memory which will last without our efforts, or to add to a fame which has reached its maturity and is likely to remain whether we take part in proclaiming it or leave it alone. We are here to-day, not to

add to Scott's fame, not to do that for him which he has done for himself—namely, to make succeeding generations of his own countrymen honour his memory—but to satisfy the need which we ourselves feel of placing the bust of one of the greatest literary men whom this island has ever produced amid the great galaxy of talent and genius enshrined within the walls of this historic building. Surely none has left a character more lovable, a character which gains more the more it is known, and which now, more than sixty years after his death, has won for him not merely admirers, but intimate and loving friends. And as his character stands out in its broad outlines of humanity above all, or almost all, of those with whom it will be associated within the Abbey, so, I think, we may claim for him that none of those have exceeded him in genius, none of those have been more richly endowed with the gifts of imagination than he was, and none has made a better use of his unique inspiration for the benefit and for the happiness of his own and succeeding generations.

[1897.]

Robert Louis Stevenson.

478. Robert Louis Stevenson is, in my judgment, one of the greatest—if not the very greatest—of our writers whose career lies wholly within the second half of the present century. He is also, I suppose, the most distinguished man of letters whom Edinburgh has produced since Scott.

[1896.]

479. It is impossible to make literary comparisons between such diverse geniuses as Burns, Scott, Carlyle, and Stevenson, with any hope of arriving at a fruitful result; and, indeed, Stevenson has been too recently dead, too recently taken from us, for even the hardest critic to venture to prophesy the exact position which he is destined ultimately to occupy in the literary history of his country. This, I think, however, we may say of him,—we may say that he was a man of the finest and the most delicate imagination, and that he wielded in the service of that imagination a style which for grace, for suppleness, for its power of being at once turned to any purpose which the author desired, has seldom been matched—in my judgment it has hardly been equalled—by any writer, English or Scotch.

[1897.]

Tributes
TO
Her Majesty Queen Victoria
AND
His Majesty
King Edward the Seventh

Her Majesty Queen Victoria.

480. The history of this House is not a brief or an uneventful one, but I think it has never met in sadder circumstances than to-day, or had the melancholy duty laid more clearly upon it of expressing a universal sorrow—a sorrow extending from one end of the Empire to the other, a sorrow which fills every heart and which every citizen feels, not merely as a national, but also as a personal loss. I do not know how it may seem to others, but, for my own part, I can hardly yet realise the magnitude of the blow which has fallen upon the country—a blow, indeed, sorrowfully expected, but

NOTE.—These Tributes were not ‘written’ tributes, but Speeches delivered in the House of Commons. In view, however, of their exceptional character, it has been thought desirable to print them in the larger type.

not, on that account, less heavy when it falls. I suppose that, in all the history of the British Monarchy, there never has been a case in which the feeling of national grief was so deep-seated as it is at present, so universal, so spontaneous. And that grief affects us not merely because we have lost a great personality, but because we feel that the end of a great epoch has come upon us—an epoch the beginning of which stretches beyond the memory, I suppose, of any individual whom I am now addressing, and which embraces with its compass sixty-three years, more important, more crowded with epoch-making change, than almost any other period of like length that could be selected in the history of the world. It is wonderful to reflect that, before these great changes, now familiar and almost vulgarised by constant discussion, were thought of or developed—great industrial inventions, great economic changes, great discoveries in science which are now in all men's mouths—Queen Victoria reigned over this Empire. Yet, Sir, it is not this reflection, striking though it be, which now moves us most deeply. It is not simply the length of the reign, it is not simply the magnitude of the events with which that reign is filled, which have produced the deep and abiding emotion which stirs every heart throughout this kingdom. The reign of Queen Victoria is no mere chronological landmark. It is no mere convenient division of time, useful to the historian or the chronicler. No, Sir, we feel as we do feel for our great loss because we intimately associate the personality of Queen Victoria with the great succession of events which have filled her reign, with the growth, moral and material, of the Empire over which she ruled. And, in so doing, surely we do well. In my judgment, the importance of the Crown in our Constitution is not a diminishing, but an increasing factor. It increases, and must increase with the development of those free, self-governing communities, those new commonwealths beyond the sea, who are constitutionally linked to us through the person of the Sovereign, the living symbol of Imperial unity. But, Sir, it is not given, it cannot, in ordinary course, be given, to a constitutional Monarch to signalise his reign by any great isolated action. His influence, great as it may be, can only be produced by the slow, constant, and cumulative results of a great ideal and a great example; and in presenting effectively that great ideal and that great example to her people, Queen Victoria surely was the first of all constitutional Monarchs whom the world has yet seen. Where shall we find any ideal so lofty in itself, so constantly and

consistently maintained, through two generations, through more than two generations, of her subjects, through many generations of her Ministers and public men?

Sir, it would be almost impertinent for me were I to attempt to express to the House in words the effect which the character of our late Sovereign produced upon all who were in any degree, however remote, brought in contact with her. In the simple dignity, befitting a Monarch of this realm, she could never fail, because it arose from her inherent sense of the fitness of things. And because it was no artificial ornament of office, because it was natural and inevitable, this queenly dignity only served to throw into a stronger relief, into a brighter light, those admirable virtues of the wife, the mother, and the woman, with which she was so richly endowed. Those kindly graces, those admirable qualities, have endeared her to every class in the community, and are known to all. Perhaps less known was the life of continuous labour which her position as Queen threw upon her. Short as was the interval between the last trembling signature affixed to a public document and the final and perfect rest, it was yet long enough to clog and hamper the wheels of administration; and when I saw the accumulating mass of untouched documents which awaited the attention of the Sovereign, I marvelled at the unostentatious patience which for sixty-three years, through sorrow, through suffering, in moments of weariness, in moments of despondency, had enabled her to carry on without break or pause her share in the government of this great Empire. For her there was no holiday, to her there was no intermission of toil. Domestic sorrow, domestic sickness, made no difference in her labours, and they were continued from the hour at which she became our Sovereign to within a few days—I had almost said a few hours—of her death. It is easy to chronicle the growth of Empire, the course of discovery, the progress of trade, the triumphs of war, all the events that make history interesting or exciting; but who is there that will dare to weigh in the balance the effect which such an example, continued over sixty-three years, has produced on the highest life of her people?

It was a great life, and surely it had a happy ending. She found her reward in the undying affection and the passionate devotion of all her subjects, wheresoever their lot might be cast. This has not always been the fate of her ancestors. It has not been the fate of some of the greatest among them. It has been their less happy destiny to outlive contemporary fame, to see their people's

love grow cold, to find new generations growing up who know them not, and burdens to be lifted too heavy for their aged arms. Their sun, once so bright, has set amid darkening clouds and the muttering of threatening tempests. Such was not the lot of Queen Victoria. She passed away with her children and her children's children, to the third generation, around her, beloved and cherished of all. She passed away without, I well believe, a single enemy in the world—for even those who loved not England loved her ; and she passed away not only knowing that she was—I had almost said adored by her people, but that their feelings towards her had grown in depth and intensity with every year in which she was spared to rule over them. No such reign, no such ending, can the history of this country show us.

Mr. Speaker, the Message from the King which you have read from the Chair calls forth, according to the immemorial usage of this House, a double response. We condole with His Majesty upon the irreparable loss which he and the country have sustained. We congratulate him upon his accession to the ancient dignities of his House. I suppose at this moment there is no sadder heart in this kingdom than that of its Sovereign ; and it may seem, therefore, to savour of bitter irony that we should offer him on such a melancholy occasion the congratulations of his people. Yet, Sir, it is not so. Each generation must bear its own burdens ; and in the course of nature it is right that the burden of Monarchy should fall upon the heir to the Throne. He is therefore to be congratulated, as every man is to be congratulated who, in obedience to plain duty, takes upon himself the weight of great responsibilities, filled with the earnest hope of worthily fulfilling his task to the end, or, in his own words, "while life shall last". It is for us on this occasion, so momentous in the history of the Monarchy, so momentous in the history of the King, to express to him our unfailing confidence that the great interests committed to his charge are safe in his keeping, to assure him of the ungrudging support which his loyal subjects are ever prepared to give him, to wish him honour, to wish him long life, to wish him the greatest of all blessings, the blessings of reigning over a happy and a contented people, and to wish, above all, that his reign may, in the eyes of an envious posterity, fitly compare with that great epoch which has just drawn to a close. Mr. Speaker, I now beg to read the Address which I shall ask you to put from the Chair and to which I shall ask the House to assent. I move—

"That a humble Address be presented to His Majesty, to assure

His Majesty that this House deeply sympathises in the great sorrow which His Majesty has sustained by the death of our beloved Sovereign, the late Queen, whose unfailing devotion to the duties of Her high estate and to the welfare of Her people will ever cause Her reign to be remembered with reverence and affection ; to submit to His Majesty our respectful congratulations on His Accession to the Throne ; to assure His Majesty of our loyal attachment to His person ; and further to assure Him of our earnest conviction that His reign will be distinguished under the blessing of Providence by an anxious desire to maintain the Laws of the Kingdom, and to promote the happiness and liberty of His subjects." . [1901.]

This Majesty King Edward the Seventh.

481. Twice in ten years we have been assembled on the saddest and most moving occasion which can call the representatives of the Commons together. I do not think anything which any of us can remember can exceed in its pathos the sudden grief which has befallen the whole of the community within these islands and the whole of the Empire of which these islands are the centre, and which has found an echo in every civilised nation in the world. I do not think that the deep feelings which move us all are accounted for merely by our sense of the great public loss which this nation has sustained, nor of the tragic circumstances by which that great loss has been accompanied. There are far deeper feelings moved in us all than any based merely upon the careful weighing of public gains and public losses, for all of us feel that we have lost one who loved us, and who desired to serve the people whom we represent ; and we have lost one with regard to whom we separately and individually feel a personal affection, in addition to our respectful loyalty. I have often wondered at the depth of the personal feeling of affection and devotion which it is possible for a Sovereign, circumstanced as our Sovereigns are, to excite among those over whom they reign.

It is easy for those who, like the Prime Minister and myself and many others, have been brought into personal contact with the late King, to appreciate his kindness, his readiness to understand the difficulties of those who were endeavouring to serve him, the unfailing tact and all the admirable qualities which the Prime Minister has so eloquently described. But, Sir, when I ask myself who of the great community over which King Edward ruled could feel as those

felt who were brought into immediate contact with him, then I say it is due, and can only be due, to some incommunicable and unanalysable power of genius which enabled the King, by the perfect simplicity of his personality, to make all men love him and understand him.

Sir, genius keeps its counsels, and I think no mere attempt of analysing character, no weighing of merits, no attempt to catalogue great gifts really touches the root of that great secret which made King Edward one of the most beloved monarchs that ever ruled over this great Empire. This power of communicating with all mankind, this power of bringing them into sympathy is surely the most kingly of all qualities, the one most valuable in a Sovereign. The duties of kingship are not becoming easier as time goes on, while, as I think, they are also becoming, under the conditions of modern Empire, even more necessary to the health, and even to the existence, of the State. The King has few or none of the powers of explaining and communicating himself by ordinary channels to those over whom he rules. In these democratic days we all of us spend our lives in explaining. The King cannot; he has no opportunity such as we possess of laying his views before the judgment seat of public opinion. And, Sir, while those are difficulties which nobody who thinks over them will be inclined to undervalue, I think it is becoming more and more apparent to everybody who considers the circumstances of this great Empire, that our Sovereign, the Monarch of this country, is one of its most valued possessions. For what are we in these islands? We are part of an Empire which in one Continent is the heir of great Oriental monarchies, in other Continents is one of a brotherhood of democracies; and of this strangely-compacted whole the Sovereign, the hereditary Sovereign of Great Britain, is the embodiment, and the only embodiment of Imperial unity. He it is to whom all eyes from across the ocean look as the embodiment of their Imperial ideal, while we, the politicians of the hour, are but dim and shadowy figures to our fellow-subjects in other lands. While they but half-understand our controversies, and but imperfectly appreciate or realise our characteristics, the Monarch, the Constitutional Monarch, of this great Empire is the sign and symbol that we are all united together as one Empire to carry out great and common interests. The burden, therefore, which is thrown upon the Sovereign, could never have been foreseen by our forefathers before this Empire came into being, and I think that even we ourselves at this

very moment, and at this late state of Imperial development, are only half beginning to understand its vital importance. Sir, if I am right in what I have said (and I think I am), these marvellous gifts which King Edward possessed, are, as I have said, the great kingly qualities which we most desire to see in our Monarch; and he used them to the utmost and to the full, as the Prime Minister has told us, and they had their effect not merely among his subjects wherever they might dwell, but also among people belonging to other nations, our neighbours—happily our friends—in other countries.

Sir, there have been, I think, strange misunderstandings with regard to the relation of the great King who has just departed, with the administration of our foreign affairs. There are people who suppose he took upon himself duties commonly left to his servants, and that when the secrets of diplomacy are revealed to the historian it will be found that he took a part not known, but half-suspected, in the transactions of his reign. Sir, that is to belittle the King; it is not to pay him the tribute which in this connection he so greatly deserves. We must not think of him as a dexterous diplomatist—he was a great Monarch; and it was because he was able naturally, simply through the incommunicable gift of personality, to make all feel, to embody for all men, the friendly policy of this country, that he was able to do a work in the bringing together of nations which has fallen to the lot of few men, be they kings, or be they subjects, to accomplish. He did what no Minister, no Cabinet, no Ambassadors, neither treaties, nor protocols, nor understandings, no debates, no banquets, and no speeches were able to perform. He, by his personality, and by his personality alone, brought home to the minds of millions on the Continent, as nothing we could have done would have brought home to them, the friendly feeling of the country over which King Edward ruled. He has gone. He has gone in the plenitude of his powers, in the noontide of his popularity, in the ripeness of his experience. He has gone, but he will never be absent either from the memory or the affections of those who were his subjects. He has gone, but the Empire remains; and the burden which he so nobly bore now falls to another to sustain.

It is right that we at the beginning of the reign, conscious of what the labours, difficulties, and responsibilities of a Constitutional Monarch are, it is right that we should go forward, and, in words such as those which have been read from the Chair, assure King George

of that loyal support and affection which we and the nation whom we represent unvaryingly gave to his father, and which will still most assuredly not be withheld from him. He brings to the great task which has thus been unexpectedly thrust upon him the greatest of all qualities—the qualities of deep-rooted patriotism and love for that Empire of which he is called upon to be the head, and the earnest desire he has constantly shown to do his duty. These are virtues which neither the country nor the House will be slow to appreciate. We may look forward in his person to finding again that great exemplar of constitutional monarchy of which his two great predecessors have given such illustrious examples.

The Prime Minister has referred to another Resolution which you, Sir, have not yet put, and which touches on a matter almost too sacred for public speech, but our hearts are so full of deep sympathy for the bereaved lady, the Queen-Mother, that we cannot withhold some public form of expression of it on an occasion like the present. The Queen-Mother has been adored by the people of this country ever since she came amongst us. She was adored by them in the heyday of youth and prosperity, and she may be well assured that in these days of adversity the affection and respect of the people of this country will gain rather than diminish in strength. We are surely right in laying before her a tribute of our deep sympathy. We know, or we can guess, how much she has felt. We know how irremediable is her grief, and in that grief she will ever have the warmest sympathy and affection both of this House and of those whom this House represents. . . . [1910.]

Tributes
TO
The Right Hon. William Ewart Gladstone
(1898)
The Marquis of Salisbury
(1903-4)
AND
The Duke of Devonshire
(1908)

Mr. Gladstone.

482. Mr. Lowther, it is now seventeen years and more since a Minister rose in his place to discharge the melancholy duty which now devolves upon me. It then fell to the survivor of two great contemporaries, divided in political opinion, opposed to each other for more than a generation, separated it may be even more conclusively by differences of temperament, to propose a national memorial of the other. The task which then fell to Mr. Gladstone was one of infinite difficulty, for he had to propose an address similar to that which you, Sir, will shortly read from the Chair, at a time when the controversies which had just been ended by death were still living in the immediate recollection of his audience, before the dust

NOTE.—These Tributes were Speech, not ‘written,’ tributes, but, in view of their exceptional character, it has been thought desirable to print them in the larger type.

of battle had had time to sink, and when the noise of it was still in every ear. How Mr. Gladstone performed that delicate duty is in the memory of all who heard him, and I am only glad to think that, difficult as is the task which I have to perform to-day, impossible, indeed, from certain aspects, at all events the difficulties with which he had to contend do not beset my path. No persuasion need be exercised by me in inducing even the most scrupulous to join in an Address which we shall, I believe, unanimously vote this afternoon, for all feel that the great career which has just drawn to its close is a career already in large part a matter of history, and none of us will find even a momentary difficulty in forgetting any of the controversial aspects of his life, even though we ourselves may to some extent have been involved in them.

I have said that Mr. Gladstone's great career is already in large part and to the vast majority of this House a matter of history; and is it not so? He was Cabinet Minister before most of us were born; I believe there is in this House at the present time but one man who served under Mr. Gladstone in the first Cabinet over which he presided as Prime Minister; and even Members of the House not colleagues of Mr. Gladstone who were Members of the Parliament of 1868 to 1874—even those form now but a small and ever-dwindling band. This is not the place, nor this the occasion, on which to attempt any estimate of such a career; a career which began on the morrow of the first Reform Bill, which lasted for two generations, and which, so far as politics were concerned, was brought to a close a few years ago, during a fourth tenure of office as Prime Minister. But, Sir, during those two generations, during those sixty years, this country went through a series of changes, revolutionary in amount, if not by procedure, changes scientific, changes theological, changes social, changes political. In all these phases of contemporary evolution Mr. Gladstone took the liveliest interest. All of them he watched closely; in many of them he took a part—in some of them the part he took was supreme, that of a governing and guiding influence. Sir, how is it possible for us on the present occasion to form an estimate of a life so complex—a life so little to be measured by a purely political standard, a life so rich in results outside the work of this House, the work of Party politics, the work of Imperial Administration—how is it possible, I say, for any man to pretend to exhaust the many-sided aspects of such a life even on such an occasion as this?

Sir, I feel myself unequal even to dealing with what is perhaps more strictly germane to this Address—I mean, Mr. Gladstone as a politician, as a Minister, as a leader of public thought, as an eminent servant of the Queen ; and if I venture to say anything to the House, it is rather of Mr. Gladstone as the greatest member of the greatest deliberative assembly which, so far, the world has seen, that I would wish to speak. Sir, I think it is the language of sober and of unexaggerated truth to say that there is no gift which would enable a man to move, to influence, to adorn an assembly like this that Mr. Gladstone did not possess in a supereminent degree. Debaters as ready there may have been, orators as finished ; it may have been given to others to sway as skilfully this critical assembly, or to appeal with as much directness and force to the simple instincts of the great masses of our countrymen : but, Sir, it has been given to no man to combine all those great gifts as they were combined in the person of Mr. Gladstone. From the conversational discussion appropriate to our work in Committee, to the most sustained eloquence befitting some high argument and some great historic occasion, every weapon of Parliamentary warfare was wielded by him with the sureness and the ease of perfect, absolute, and complete mastery. I would not venture myself to pronounce an opinion as to whether he was most excellent in the exposition of some complicated project of finance or legislation, or whether he shone most in the heat of extemporary debate. At least this we may say, that from the humbler arts of ridicule or invective to the subtlest dialectic, the most persuasive eloquence, the most moving appeals to everything that was highest and best in the audience he was addressing—every instrument which could find place in the armoury of a Member of this House he had at his command without premeditation, without forethought, at the moment, and in the form which was best suited to carry out his purpose.

I suppose each one of us who has had the good fortune to be able to watch any part of that wonderful career must have in mind some particular example which seems to him to embody the greatest excellences of this most excellent member of Parliament. Sir, the scene which comes back to my mind is one relating to an outworn and half-forgotten controversy now more than twenty years past, in which, as it happened, Mr. Gladstone was placed in the most difficult position which it is possible for a man to occupy—a position in which he finds himself opposed to the united and vigorous forces of his ordinary opponents, but does not happen at

the moment to have behind him more than the hesitating sympathy or the veiled opposition of his friends. On this particular occasion I remember there occurred one of those preliminary debates which preceded the main business of the evening. In these Mr. Gladstone had to speak, not once, nor twice only, but several times, and it was not until hour after hour had passed in this preliminary skirmishing that, to a House hostile, impatient, and utterly weary, he rose to present his case with that unhesitating conviction in the righteousness of his cause, which was his great strength as a speaker in and out of this House. I never, Sir, shall forget the impression that that scene left on my mind. As a mere feat of physical endurance it was unsurpassed; as a feat of Parliamentary courage, of Parliamentary skill, of Parliamentary endurance, and Parliamentary eloquence, I believe that it was almost unique. Alas! let no man hope to be able to reconstruct from our records any living likeness of these great works of genius. The words, indeed, are there, lying side by side with the words of lesser men in an equality as if of death; but the spirit, the fire, the inspiration has gone, and he who could alone revive them, he who could alone show us what these works really were, by reproducing their like—he, alas! has now gone from us for ever. Posterity must take it on our testimony what he was to those, friends or foes, whose fortune it was to be able to hear him. We who thus heard him know that, though our days be prolonged, and though it may be our fortune to see the dawn or even the meridian of other men destined to illustrate this House and do great and glorious service to their Sovereign and their country, we shall never again in this Assembly see any man who can reproduce for us what Mr. Gladstone was—who can show to those who never heard him how much they have lost.

It may, perhaps, Sir, be asked whether I have nothing to say about Mr. Gladstone's work as a statesman, about the judgment we ought to pass upon the part which he has played in the history of his country and the history of the world during the many years in which he held the foremost place in this Assembly. These questions are legitimate questions. But they are not to be discussed by me to-day. Nor, indeed, do I think that the final answer can be given to them—the final judgment pronounced—in the course of this generation. But one service he did—in my opinion incalculable—which is altogether apart from the verdicts which we may be disposed to pass upon particular opinions or particular lines of policy which Mr. Gladstone may from time to time have adopted. Sir, he added a

dignity, and he added a weight, to the deliberations of this House by his genius, for which I think it is impossible to be sufficiently grateful. It is not enough for us simply to keep up a level, though it be a high level, of probity and of patriotism. The mere average of civic virtue is not sufficient to preserve this assembly from the fate which has overtaken so many other assemblies like us—the products of democratic forces. More than this is required, more than this was given to us by Mr. Gladstone. He brought to our debates a genius which raised in the general estimation the whole level of our proceedings; and they will be the most ready to admit the infinite value of this service who realise how much of public well-being is involved in maintaining the dignity and interest of public life, how perilously difficult most democracies apparently find it to avoid the opposite dangers into which so many of them have fallen. Sir, that is a consideration which, perhaps, has not occurred to persons unfamiliar with our debates, or unwatchful of the course of contemporary thought; but to me it seems that it places the services of Mr. Gladstone to this Assembly, which he loved so well, and of which he was so great an ornament, in as clear a light and on as firm a basis as it is perhaps possible to place them.

In drawing the terms of the Address which will shortly be read from the Chair we have thought it our duty—and in that, at all events, we know that we are pursuing the course which Mr. Gladstone himself would most earnestly have approved—to adhere closely to former precedent. Not one phrase in this address is there which has not at least on one occasion been employed by this House when it was doing honour to some of the greatest of Mr. Gladstone's predecessors. But surely these consecrated phrases never have received a happier application than they have in the case of the great statesman whose loss we are lamenting. We talk of the "admiration" and of the "attachment" of the country. These words have, Sir, perhaps been used with some slight stretch of their meaning with regard to politicians who, falling in the very midst of party contests, can hardly be described as having commanded the universal admiration and attachment of their fellow-countrymen. But I think these words applied to Mr. Gladstone at the present time are words wholly and absolutely appropriate, without a tinge of exaggeration. Then we go on to speak of the "high sense entertained of his rare and splendid gifts," of his "devoted labours in Parliament and in the great offices of State". We cast our eyes back over those sixty years which divided his first tenure of office from his last, and we feel that in

those two generations he did indeed, if any man ever did, make full display of rare and splendid gifts, and did with ungrudging devotion give his labours to Parliament and to great offices of State. Therefore, Sir, it is with an absolute confidence that the address is one which, not merely in its general purport, but in its particular terms, will meet with the sympathy and approval of every man in all parts of the House, whatever be his opinions, that I now venture to move :—

“That an humble Address be presented to Her Majesty, that Her Majesty will be graciously pleased to give directions that the remains of the Right Honourable William Ewart Gladstone be interred at the public charge, and that a monument be erected in the Collegiate Church of St. Peter’s, Westminster, with an inscription expressive of the public admiration and attachment, and of the high sense entertained of his rare and splendid gifts and his devoted labours in Parliament and in great offices of State, and to assure Her Majesty that this House will make good the expenses attending the same.”

[1898.]

The Marquis of Salisbury.

483. I believe the people of this country revered Lord Salisbury not only for his great intellectual gifts, but on account of the profound conviction they had in his honesty of purpose and in the breadth of vision which he applied to our great national interests. But though I think they gave him an unstinted admiration, I do not think they always felt that they understood him in the full sense in which they understood other great public characters, such as, let me say, taking illustration at random, Lord Palmerston or Mr. Bright, or other great English politicians who have figured in our own time on the public stage ; and if that was so, I think it was due partly to the fact that in no man whom I have ever known was there so great a detachment of judgment combined with so keen an interest in the day-to-day work of politics, which are, after all, in this country inevitably party politics. To be a detached student of public affairs, if you take very little interest in public affairs, is a very easy task. To watch with indifference the mutations of fortune and the revolutions which make the dramatic interest in our political life is easy enough to one who simply sits in the stalls and watches what goes on on the stage. Lord Salisbury’s detachment

of judgment was of a very different kind. He took the deepest and the keenest interest not merely in the larger movements of opinion, the underlying currents which mould our destinies, but he took the keenest interest in every one of those relatively insignificant skirmishes, the things that fill our minds and thoughts for a day and are forgotten on the morrow even by the chief actors—the bye-elections, the debates in the House of Commons, or whatever it might be. He took an interest in these things which could be surpassed in keenness by no observer, by no politician, by no man engaged in any capacity in public affairs. But with all that he was able to associate it with what I have tried to describe as a detachment of judgment, which made every word he uttered, in private as in public, on public affairs, a lesson to the listener. He rarely volunteered an opinion that was not asked ; in an opinion which was asked he did not always give a full and complete statement of the grounds of his opinion, but no man could hear that opinion given and doubt for a moment that it was no mere chance observation, no mere casual utterance of a casual observer, but that it had its roots deep down in fundamental principles, and that by those fundamental principles it could ultimately be judged.

I need not speak to you who have often heard him of his marvellous gifts of oratory. Other speakers may spend anxious hours in finding the epigram which is to give some lightness to the heavy oration. With Lord Salisbury the difficulty was not to find epigrams, but to restrain them. They flowed from him. They flowed from that acute and subtle brain without difficulty, without labour, to the delight of all who heard him in public, and to the greater delight of those privileged to have private access to his conversation. And though all of us knew him as a great speaker and a great statesman, I never can restrain my own regret that we have had so little opportunity of knowing him as what he was and might have been in an even greater measure—namely, a brilliant writer. I know of no man whose natural literary gift was greater, or perhaps, in its measure, as great as Lord Salisbury's ; but, unfortunately, it was too rarely exercised in later life, and in his earlier years it was too often buried under the anonymity of journalism. The loss is the greater ; and, though for reasons which I have seen most brilliantly expounded in an article by Lord Salisbury, many, many years before he became Foreign Minister, it is impossible for the British public to know how much the influence of a statesman who has charge of their foreign affairs has done, or can do, to modify for his

country's and the world's good the policies of nations, still I think the more Lord Salisbury's career is studied in the light of our increasing knowledge of foreign relations, the greater will seem the services he has done for mankind. His fame as a great English party leader and as a great British statesman is dear to his countrymen, because, if we have no other virtue, at all events this virtue we do possess, that, irrespective of party, we claim the virtues of our great men as part of our national heritage ; and I think, perhaps, you can only judge of how great is the place which Lord Salisbury occupies in modern history if you try and gauge the opinions of those best qualified to tell you what he has done in foreign affairs. I speak to-night not merely to the City of London, but to distinguished representatives of the *Corps Diplomatique*, and I think I may say in their presence, without fear of contradiction, that no name among recent British statesmen who have lived within the memory of us sitting in this hall—no name stands so high in competent foreign opinion as the name of the great man who was at once the Prime Minister of England and for so many years the guide of its destinies in foreign affairs. . . . [1903.]

484. I rise with, I believe, the general concurrence of honourable gentlemen in all parts of the House to move this national recognition to a man who held the office of Prime Minister, I believe, for a longer time than any one who has served the Crown in that capacity since the great Reform Bill. When a vote similar to this was proposed on the last two occasions it was proposed by a Leader of the House differing in politics, and often brought into political conflict with the statesmen to whom it was desired to do honour. That position was not without difficulty to the mover, yet I am not sure it was not easier than the one which falls to me ; for I am perhaps hampered in saying all that comes into my thoughts on such a subject not merely by political agreement, but by personal relationship, and by a connection, a close connection, in politics which dates from my earliest political experience ; since, indeed, I do not think that I should ever have been a Member of this House had it not been for Lord Salisbury's advice and influence. That does not make it easier for me to attempt with that impartiality of spirit which befits the occasion to recommend this vote to the House.

The task, difficult in itself, difficult from its accompanying circumstances, is certainly not made easier for any man who desires to

give a portrait of the late Lord Salisbury by the difficulties inherent in the subject. The three great statesmen, Lord Beaconsfield, Mr. Gladstone, and Lord Salisbury, who have within living memory been the subject of such a vote as this, not only differed from each other to a degree which it is difficult to exaggerate, but were in themselves, I think, men very hard to classify. It may be that the perspective of time makes a difference; but I should not have said the same, for instance, of Sir Robert Peel, of Lord Palmerston, or of Lord Russell. They seem to fall more easily into the ordinary categories of description and criticism. That is no condemnation of them, far from it; but Lord Beaconsfield, Mr. Gladstone, and Lord Salisbury were all men struck in so particular and special a mould that it is very difficult for any of the great artists, even with unlimited opportunities before him, to present to his fellow-countrymen a living portrait of the manner of men they were. And perhaps it is most difficult in the case of Lord Salisbury, because Lord Salisbury was by nature reticent. I have never known him to speak of himself. He seldom, even in practical life, gave a reason for or against any course of action which went beyond the actual needs of the moment; and where other men revealed themselves in easy generalities, he was apt to illuminate the subject with, but to shroud himself behind, some brilliant epigram. There was also a peculiarity which, I think, he possessed more than any man I have ever known—a certain self-contained simplicity which made it not easy for other men quite to understand him. It would be most unfair, I think, to say of Lord Beaconsfield that he was theatrical; but it would not be unfair to say that he had no objection to a picturesque or dramatic situation in which he was an important figure. It would be most unfair to say of Mr. Gladstone that he was greedy of popular applause; yet, rightly, I think, he I am sure was moved by the fervour of popular admiration which his genius was so eminently fitted to elicit. Lord Salisbury was, I believe, absolutely without any feelings of that kind at all. For good or for evil—and I do not say that it was wholly for good—he was completely indifferent to popular applause, or to applause of any kind, popular or otherwise; and that is so apart from the ordinary feelings, or it may sometimes be the weaknesses, of humanity that it makes his portraiture very difficult to draw.

And there was another reason which must stand in the way of any man moving this vote. It is that to the present generation his House of Commons life is now merely a matter of history. A few there are, but a very few, who knew him in the culminating

period of his House of Commons career, when by dint of sheer debating ability he had won his way to the very forefront of Parliamentary statesmen. But he was almost immediately carried away by what he regarded as an unhappy accident of birth to another place; and he so profoundly felt the loss that (if the story that we have always believed be true), although there was many a notable battle fought across the floor of this House in which his opinions, his convictions, and his Government were at stake, never once could he bring himself to watch from that Gallery the contest in which he was born to be a protagonist. And yet, Mr. Speaker, it is a singular reflection to make, that had Lord Salisbury been able to have his way, had he indeed remained what he was born to be, an ornament of the debates of this House, it would have been quite impossible for him to have been Foreign Minister through all the long and troubled years during which he directed our foreign policy; for that most laborious Department can never be filled, in my judgment, by any man who does his work both in his office and in this House. I think, therefore, that, however great the loss may have been to him, the gain to the nation from the change was great. I admit that it is impossible to form a full and fair judgment of the foreign policy of any statesman until his career be run and until the secret documents by which alone he can be judged become common property. There are bold individuals who write the history of their own time. But those histories, however great their literary skill, can, unless the writer have access to special information, have but little interest for posterity; and what is true of domestic history is doubly true of the history of international relations. It is not until the Chancelleries of Europe have given up to future historians their secrets; it is not until the controversies in which we have been engaged have lost all living interest and have become the property of the student and the historian, that our children will be able to judge how great was the part played by Lord Salisbury, and how beneficent was the part he played in the foreign history of this country. And yet, Sir, I think it is by a sound instinct that men of all parties, though they have differed, and may yet differ, from this or that action of Lord Salisbury as Prime Minister and as Foreign Secretary—it is by a sound instinct that both the House and the country regarded him with great confidence as a man earnestly desirous of maintaining the honour of his country, and not less desirous of maintaining the peace of the world, zealously bent on combining those two surely not antagonistic interests.

Therefore, it is, Sir, that with some confidence I ask the House, in the traditional terms which time has consecrated to occasions like this, to express the national gratitude for Lord Salisbury's services. Certainly this I will say, with universal concurrence, that never did any man bring to the service of his country an intellect of greater distinction, and never did any man spend himself in that service with more single-minded and whole-hearted devotion. [1904.]

The Duke of Devonshire.

485. I think all who have heard the Chancellor of the Exchequer will admit not only that he has done well to ask this House to join, informally, indeed, but none the less really, in expressing its profound regret at the loss which public life in this country has sustained, but they will agree with me in thinking that that tribute to a great man departed could not have been proffered in terms more exquisitely or more fittingly chosen, or that more aptly illustrated and expressed the feelings of every gentleman who heard it. This is not the time nor is it the place when we can attempt any survey of the position which the Duke of Devonshire held in, and the effect which he produced upon, the great movements of politics and parties during the long period in which he bore a prominent place in the councils of his country. I certainly do not mean to touch upon that theme.

But if, as all will admit, his influence was great, I think he owed it not merely to those abilities with which he was so richly endowed, but to that transparent honesty and simplicity of purpose which not only existed in him in an exceptional measure, but was quite obvious to every man with whom he came in personal contact, to every audience which he addressed, and which, when it is real and plain, is one of the most potent factors in public influence. I think that of all the great statesmen I have known, the Duke of Devonshire was the most persuasive speaker ; and he was persuasive because he never attempted to conceal the strength of the case against him. As I put that, it might be regarded as a rhetorical art, but as a rhetorical art it would have been wholly ineffective. In the Duke of Devonshire it was effective because he brought before the public in absolutely clear, transparent, and unmistakable terms the very arguments he had been going through patiently and honestly before he arrived at his conclusions. He had seen all the difficulties which

he ultimately had to pursue. He knew as we all know, that there are arguments, real and strong arguments, to be urged on both sides of almost every practical question that has to be decided. What made the Duke of Devonshire persuasive to friends and foes alike was that when he came before the House of Commons or any other Assembly, he told them the processes through which his own mind had gone in arriving at the conclusion at which he ultimately had arrived. Every man felt that this was no rhetorical device, but that he had shown in clear and unmistakable terms the very intimate processes by which he had arrived at the conclusion which he then honestly supported without fear or favour, without dread of criticism, without hope of applause. He had that quality in a far greater measure than any man I have ever known ; and it gave him a dominant position in any Assembly. In the Cabinet, in the House of Commons, in the House of Lords, on the public platform, wherever it was, every man said, ‘ Here is one addressing us who has done his best to master every aspect of this question, who has been driven by logic to arrive at certain conclusions, and who is disguising from us no argument on either side which either weighed with him or moved him to come to the conclusion at which he has arrived. How can we hope to have a more clear-sighted or honest guide in the course we ought to pursue ? ’ That was the secret of his great strength as an orator. As a man he had a singular gift. He had that transparent simplicity of character which gave him the power of arousing and retaining the affections of all those with whom he came into personal contact.

As to his public life, that is before us. We all know it. Part of it is a matter of history, part of it has come under our own observation ; and whether we regard it as historians, or look at it by the light of our personal experience, there can be but one verdict on the great career now drawn to its close—that he was a man of singularly transparent honesty and public spirit, and that in his death the whole public life of England has diminished in dignity and has suffered a loss which it is impossible in our time it can ever wholly repair. [1908.]

Miscellaneous.

Athletics.

486. There are critics who watch the rapid growth of interest in athletic matters with something like suspicion—I will not say dislike. I do not share their views. I hold—I have always held—that the healthy interest in athletic sports and games of all kinds, which is one of the most distinguished and characteristic marks of the age in which we live, and of the country and race to which we belong, is an admirable sign of the times. That it has never led to abuse I will not, of course, pretend to say—for what human institution is there, what human pursuit is there, which has not, at some time or in some place, led to abuse? But, in the main, I believe it to be admirable and healthy, and think that the peculiar development given to it by the Association of Conservative Clubs, namely, its social side, as it is one of the latest, so it is one of the best, developments of this movement. . . . [1896.]

487. I am here to plead not for a University but for a University necessity. To hear some people talk, you would almost suppose that athletics was a kind of parasitic growth upon modern educational institutions. I do not take that view, and I never have taken that view. If this were the place or the time—above all, if this were the audience—I think I could demonstrate that there are some subjects of academic study of great repute, of historical standing, which cannot claim to be equal in educational efficiency to some of the athletic pursuits now so ardently followed both in Scotland and in England. Patience, sobriety, courage, temper, discipline, subordination—all these are virtues necessary for the highest excellence, either at cricket or at football. I do not know that these virtues are produced by some subjects of study which I could mention, and I do not know that any greater good can be done to a place where young men are congregated than to give them every opportunity of pursuing these wholesome and noble exercises to the best possible advantage. But I think there is another point of view, and an even higher point of view, from which athletic exercises may be recommended to your favourable attention. For what does a University exist? It exists largely, no doubt, to foster that disinterested love of knowledge, which is one of the highest of all gifts. It exists, no doubt, to give that professional training which is an absolute

necessity in any modern civilised community. These great objects may no doubt be carried out without any elaborate equipment for athletic exercises, but I do not think that the duties of a modern University end there. A University, if I may speak from my own experience, and say what I believe to be the universal experience of all who have had the advantage of a University training—a University gives a man all through his life the sense that he belongs to a great community in which he spent his youth, which indeed he has left, but to which he still belongs, whose members are not merely the students congregated for the time being within the walls where they are pursuing their intellectual training, but are scattered throughout the world ; but, though scattered, have never lost the sense that they still belong to the great University which gave them their education. That feeling—not the least valuable possession which a man carries away with him from a University life—that feeling may be fostered—is fostered, no doubt, by a community of education—by attending the same lectures, by passing the same examinations : but no influence fosters it more surely and more effectually than that feeling of common life which the modern athletic sports, as they have been developed in modern places of learning, give to all those who take an interest in such matters, whether as performers or as spectators. [1896.]

488. The value of a University for educational purposes lies not principally in its examinations, not even wholly in its teaching, however admirable that teaching may be. It lies, and must lie, in the collision of minds between student and student. We learn at all times of life, but perhaps most when we are young, as much from our contemporaries as from anybody else, and when we are young we learn from our contemporaries what no Professor, however eminent, can teach us. Therefore it is that while I admire the lives—admirable beyond any power of mine to express my admiration—the lives of those solitary students who, under great difficulties, come up to Edinburgh or some other University, and without intercourse with their fellows, doggedly and perseveringly pursue their studies—very often under most serious pressure of home difficulties—their course, however admirable, is not the course which can give them to the fullest those great advantages which are possessed by those whose lot is more happily cast than theirs. I therefore associate myself entirely with what Lord Rosebery dropped—perhaps as an *obiter dictum*—as to athletics. I do not think the athletic movement has been overdone—that is my personal opinion. I believe, on the contrary, that the intercourse between students which it has produced, the organisations to which it has given birth, and the good fellowship which it has secured, are of infinite educational value. [1898.]

Cycling.

489. There is, without jesting, however, a certain connection between the problems presented by the vast aggregation of population which now exists within the area of London and the solution of some elements in that problem by the growth of cycling among all classes of the population. The urban population of this small island is destined to grow, and the rural areas destined to diminish, and in this the greatest of all cities there is a grave danger that a large portion of the population may be deprived of any personal knowledge and experience of the joys of country life and the beauties of country scenery. But the cycle has saved us; and I am not exaggerating when I say that our grandfathers and great-grandfathers, at a time when London was but a small fraction of what it now is, had fewer opportunities of getting rapidly out of it than, in consequence largely of the cycle, we now enjoy. If that be so—and I speak from my own experience, as others can from theirs—there has been no more civilising invention in the present generation than the invention of the cycle, which is enjoyed by all classes, and by both sexes, and by all ages. There is none which is less dependent upon external circumstances, or upon preliminary organisation. . . . [1899.]

Experts.

[See also "EDUCATION: 'TECHNICAL AND SCIENTIFIC,' and 'UNIVERSITY'."]

490. I remember the time—I am not sure it has altogether gone by—when the word 'expert' was anathema in the House of Commons and other representative assemblies. I remember the time when an expert was regarded as a person entirely immersed in the minute study of one aspect of one question, who on the strength of his investigations came forward and lectured the rest of the world, and from the height of his superior knowledge attempted to direct the course which the world ought to pursue. And if you go back a little further beyond the period I have just described, you find the expert was held in contempt; and beyond you get to a period not very remote in which the expert was never heard at all. The expert is a modern growth—except in the law. In the law there always have been, and indeed always must be experts, and always ought to be experts. Whether they have ever, or have not, abused their position as experts, my learned friend on my left is more competent to say than I. But at all events, until comparatively recently, outside the law there was not

concerned with public affairs any body of men who could be described as experts at all. The whole community was on the dead level of common ignorance. Those were the happy times in which any men of adequate industry and ability could really master all that was worth knowing contained in books ; and the books in which he mastered them had no elaborate references at the bottom of the page to other authorities. Nor did you find at the end a bibliography containing a gigantic list of books which the author implied that he had read and suggested that you ought to read also. Those days have gone by ; and it is happy, and it is fortunate, that they have gone by so far as the great social work of the community is concerned. It is quite impossible now that in any branch of learning, be it practical or be it theoretical, any man, whatever his power of industry, whatever his memory or capacity of observation be, can really master all that is worth mastering ; and the result is that there is more and more coming a division of intellectual and practical labour,—inevitable, on the whole beneficial, but which, I think, nobody will deny has, and will have, its dangers.

I often think it a beneficent arrangement of our mundane affairs that absolute government went out just when the experts came in. It would be an awful thing to have an absolute Governor who was an expert. And I think even the experts who are listening to me—I hope sympathetically—will be prepared to endorse that sentiment when I remind them that the super-expert of whom I am speaking might possibly not belong to the same expert school as themselves. Now that danger we have escaped, and the difficulty we have to deal with is how in the first place to stimulate to the utmost all our ability and expert knowledge in every department, theoretical and practical, and then to turn it to the best account. That is the problem before modern society. You have got to use the experts, you have to improve the knowledge of experts, you have to help them in every way, by endowment and otherwise, to carry on their work. When they have carried it on, you have to turn it to account, and that is not always so easy a problem as at first sight it may appear. The first experts to deal with public affairs were the early economists, and they took the view, which was a convenient view from the politician's standpoint, that the less communities and governments meddled with anything the better for the community. They held quite sincerely, and with considerable plausibility, that politicians, Ministers, Members of Parliament, agitators, were so stupid that they had much better not meddle with things they did not understand ; and that attitude was reflected beyond the sphere of early economics into the adjacent sphere of social work. But nobody holds that old doctrine in its entirety at the present time. Everybody recognises—at least, so far as my experience goes, everybody who counts recognises—as an indisputable truth that the community as a whole, acting through its central government and organisation, cannot treat as no affair of its own the general well-being of special sections of the community. You cannot stand aside and merely

'keep the peace,' so to speak, as the old phrase went. A Government cannot act merely as a gigantic embodied policeman. Other duties fall to it; other duties must be carried out, and they cannot be carried out unless we know in the first place how to produce experts and then how to use them. [1911.]

Matrimony.

491. I think all will agree that if matrimony is to succeed good manners should be adopted on both sides. Everybody will admit that a relation not always easy to keep smooth can only be kept smooth if there is mutual consideration and mutual respect. And is it not true that occasionally we see the most loud-mouthed and blustering member of a more or less united couple has to pay, as it were, for those triumphs (shall I call them), those external and public triumphs, by very substantial concessions in private? And is it not also true that it is not always the best method of getting your own way to adopt the most aggressive methods, aggressive manners, and to employ the loudest language? That is a moral which I recommend to all husbands and to all wives. I recommend it from the serene platform of the confirmed bachelor. . . . [1906.]

Nationality.

492. I am perfectly confident that we who do not belong to the predominant partner are perfectly right in keeping up a deep interest and affectionate investigation, quite apart from the interest of scholarships, in the history of our own portion of these islands. The contributory streams which make up the great river of British history spring from different sources, flow through different countries, have scenery of a very different character on their banks; but all are required to make up the main river into which they flow. There is none of them that can be spared, and a pious investigation of the whole course is surely worthy of all those who may claim to belong to one or other of these confluent tributaries. I am not going into intricate questions of race, though I believe they are the most important of all, and I think also that probably on them the best light is thrown by those linguistic studies which are one of the great subjects of investigation by this Society.

I do not believe myself in any sharp divisions of race within these islands. I do not believe that history bears it out; I do not think that

anthropology bears it out ; I do not believe that minute study of character of different districts bears it out. There are differences, of course, but they melt into one another, and you cannot say, ' This man is a Welshman and therefore he is descended from such-and-such Celtic tribe ; this man comes from Ireland, that man comes from Northumberland, that one from Yorkshire, and therefore he is of such-and-such descent '.

There is no such thing in these islands as a man of pure descent from any race whatever ; and I believe if the truth were known you would find that a race which has left no literature, no body of laws, no customs, no records behind it, has nevertheless left that which is as important as anything written either on parchment or upon stone or printed in books—has left in each one of us that trace of inherited aptitude of blood, an inheritance of people who were here long before either the Celtic conquerors of one race or the Celtic conquerors of another race, or the Danes or the Saxons, or the Normans ever landed upon these shores. We are after all not precisely it may be of identic blood, but there is no sharp distinction to be drawn anywhere from the east coast of Kent to the furthestmost part of Ireland in which you can say, ' Here one race ends, and there another race begins '.

[1909.]

493. The spirit of nationality must never be allowed to grow into the spirit of particularism. If each nation were an absolute flat, unvaried plane of culture, each nation being a mere replica—with all the uninteresting flatness of the copy—of every other nation, the world would lose greatly. It would lose also, perhaps it would lose even more, if each community which could trace some separate tradition of civilisation for itself were to say, ' That tradition, and that tradition alone, will I develop : I will not join in the common chorus of civilised humanity, but I will sing my own tune in my own way, and I will take no share in the common work of literature and imaginative development '. Those are the two rocks, the two dangers, which lie before us. I am an immense believer in these separate nationalities. I think they give a quality, a tone, a variety to the common work of Western culture which can never be got in any other way. But, like every other very good thing, they can be abused. You do find people who hold extravagant views of particularism and would have a purely Scotch, a purely Irish, a purely Welsh—whatever it may be—literature, music, art. That is not the way to do it. It is not the way it was done in the great days of Welsh literature. It is not the way it was done when Scotland contributed, *as* Scotland, its quota to British literature. It is not the way it ever will be done ; and it is not the way, I am convinced, this Society ever desires it should be done. It works through these records of marvellous historic and literary interest with a view of making every inhabitant of this island at the same time remember his origin, the origin and history of the particular part of the island in which he lives, and

yet feel in full consciousness that all this leads up to the greater and fuller national life in which the particular is not forgotten, is not ignored, loses none of its effects, but joins in the full and harmonious chord in which the notes may be different but in which the effect is a unity. . [1909.]

494. In my view there is in these Islands no sharp division of race at all. In the veins of the inhabitants runs more than one strain of blood. The English are not simply Teutonic—still less are the Irish Celtic. We must conceive the pre-historic inhabitants both of Britain and of Ireland as subject to repeated waves of invasion from the wandering peoples of the Continent. The Celt preceded the Teuton ; and in certain regions his language still survives. The Teuton followed him in (as I suppose) far greater numbers, and his language has become that of a large fraction of the civilised world. But in no part of the United Kingdom is the Teutonic strain free from either the Celtic or pre-Celtic strain ; nor do I believe that the Celtic strain has anywhere a predominance such as that which, speaking very roughly, the Teutonic strain possesses in the East of these Islands, or the pre-Celtic strain in the West.

[1912.]

Picture Galleries.

495. Sculpture, architecture, and painting are, by the very necessities of the case, excluded from, and are out of the reach of the great mass of mankind. You may, of course, make exceptions ; . . . and I go so far as to say that picture galleries, though they are a necessity, are in some senses, from an artistic point of view, a necessary evil. You cannot admire a picture in a picture gallery as it ought to be admired. It is impossible. It was painted for a church perhaps, or to be part of the decoration of a room constantly lived in, and those who worship in the church or live in that room can appreciate the picture, and absorb from it all the painter had embodied in it ; but we go and pay a shilling at the door, we go into a gallery in which there are two thousand pictures, and go from one to the other half-dazed by the number, half-stunned by the noise, the trampling of feet, and the foolish comment we hear around us. How can we see all that is best of the work of the great painter who produced it ? [1886.]

496. I express my private opinion only when I say that I believe there is more innocent hypocrisy talked about the admiration of picture galleries than about any other subject connected either with religion or with culture. People get their sentiments on these matters not from the pictures which they look at, but from the guide-books which they read; and they struggle wearily through foreign gallery after foreign gallery, picking up little more, I am afraid, in many cases than a mere catalogue of the names of the great masters of ancient times, and, if they are industrious, a small smattering of art terms from Murray's guide-book. Now, this is not wholly the fault of the spectators. The truth is that most of the pictures we look at in galleries never were intended to be looked at in galleries at all; they were painted to be enjoyed under very different surroundings, and those who are genuinely fond of art may well be pardoned if they look with dismay at a catalogue of thousands of masterpieces which they are expected to enjoy in the course of a morning's walk through some great gallery. . . . [1889.]

Provision of Temporary Homes for Youths in Industrial Centres.

497. That it is a good thing to provide something in the nature of a substitute for a home for those who are homeless, that it is a good thing to supply conditions which will keep youths, at one of the most critical and difficult ages of life, from unnecessary difficulty and from unnecessary temptation—these are surely statements which it is not necessary to press upon the attention of those who profess themselves to be members of a Christian community. The merits and advantages of providing for such persons—I will not say a home, but, as I have said, a substitute for a home, the best substitute that public charity can provide for a home—are surely obvious. . . . Observe how the task I ask you to fulfil is a necessary consequence of the development of the industries of London—a necessary consequence of our new and, in some respects, advanced social condition. After all, the provision of homes for youths setting about to learn their business is no new problem. But we have to meet it in a new way. In former times the necessity was met by the system of apprenticeship. It was felt—it has been felt for hundreds of years—that when you were teaching a youth his trade, when you were asking from him work at a period of life when he could not be expected to live on the produce of his toil, it was part of your duty to provide him with a home, unless that home was otherwise supplied. Now, in an enormous number of cases in London it cannot be otherwise supplied, or in part supplied, because the manifold

accidents of life deprive a large number of these youths of parents and guardians, even though they be London born. But many of these youths are not London born. They come up in response to the demands for labour from many a country town and many a rural district, and find themselves in the middle of this great metropolis, a necessary part of its working staff, and yet supplied by the metropolis with none of the provision which youths of that age necessarily require and which used to be supplied in most respects under an old and in many ways obsolete industrial system. Now, am I not right in saying that this throws upon the citizens of London a direct responsibility which it is their business to bear? Recollect you are dealing with a class who, from the nature of the case, cannot now be expected, and never at any time have been expected, in the main to supply the whole cost of their living, including those home comforts and home surroundings which any man in the prime of life hopes to secure as the result of his own toil. They cannot do that. The remuneration given them is not sufficient to enable them to do it, and I do not ask that the remuneration should be raised above the ordinary market value, regulated by supply and demand. It has never been supposed that an employer, taking in hand the training of these immature workmen, should be expected to give them the full amount of remuneration which doubtless they will earn later in life if they get their fair chance, but which now they cannot be expected to supply themselves with. Well, what I ask you to do is to recollect that the community as such has duties towards persons in this position. I do not think, and I do not believe, that it is practicable for the community to carry it out in its collective capacity. I do not think, and I do not believe, that either the State as the State, or the municipality as the municipality, can be expected to supply out of public funds the means necessary for carrying out the kind of work which I am venturing to recommend to your favourable notice. But if neither the State can do it, nor the municipality can do it, what is the only third alternative? The only third alternative is that you, as representing the charitable public, should set your hands to the task, and do in the name of the public what is, undoubtedly, a public duty, and see that this great gap—this great want—in the social machinery of the greatest of all industrial centres is filled, and adequately filled.

I think, possibly, there may be stern critics who think that any undertaking of this kind may have, as one of its collateral consequences, the encouragement of some form of pauperism—pauperism more or less genteel. I do not agree with that view; on the contrary, I hold with almost all the practical authorities upon our Poor Law system, and with all those who have devoted their time, their lives, their energies, and their thoughts to the great work of charitable organisation—I hold with those authorities, the weight of whose testimony is not likely to be denied by anyone present, that the work in which you are asked to assist to-day is one not pauperising in its results, but which has consequences of

a directly opposite kind. Put yourself for a moment in the position of one of these friendless youths on whose behalf I plead. He has come up to London ready and willing and able to work, having in him the stuff which makes useful citizens, having in him the promise and potentiality of becoming the mainstay of some great commercial undertaking, and of aiding by his personal labour in the enormous industrial enterprises for which the City of London is responsible. Conceive such a boy coming up at the age of fourteen or fifteen, adequately educated for beginning the special work of his life, but without a friend, a home, or an introduction, in the middle of this City. What is he to do? Unless some helping hand be held out to him, unless some assistance—charitable assistance, in the best sense of the word ‘charitable’—be given to him on such an occasion, is it not only too probable that he will be handed over to the difficulty, temptation, and hardship necessarily incidental to a friendless boy in his position, having probably to get his night’s lodging at some common lodging-house, possibly amid doubtful characters, in the society of broken men, and subjected to all the temptations which are inseparable from the life of a great urban community? What you are asked to do is to provide for such a youth, not, I again say, the comforts or the privileges of home, for nothing but home can give such privileges, but the nearest approach which public organisation can make to supply that want. You are asked to give him a place where he can lodge under proper supervision, in a house carefully looked after, where reasonable order and reasonable discipline prevail, and where he will not be driven by the horrible discomforts of the place where he has got to lodge to seek in other and less reputable localities some consolation for the miseries to which he is subjected. I cannot for my own part imagine any task more worthy of your assistance than the task of aiding in this enterprise. [1894.]

INDEX TO EXTRACTS AND THEIR SOURCES.

No. of
Extract.

AUTHORITY AND REASON—

- 1-14. Chapter on "Authority and Reason," in *Foundations of Belief*.

BACON—

15. Speech at Unveiling of Memorial, Gray's Inn, June 27, 1912.

BEAUTY, AND THE CRITICISM OF BEAUTY—

16. Essay on "Handel," in *Essays and Addresses*.
17-21. Chapter on "Naturalism and Aesthetics," in *Foundations of Belief*.
22-37. Romanes Lecture (Oxford University) on "Beauty, and the Criticism of Beauty," November 24, 1909.

M. BERGSON—

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BERKELEY—

- 47-50. Essay on "Bishop Berkeley's Life and Letters," in *Essays and Addresses*.

THE BIBLE—

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ROBERT BURNS—

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CAMBRIDGE UNIVERSITY—

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CANCER RESEARCH—

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57-9. Speech to Imperial Cancer Research Fund, July 20, 1910 (*Times*).

CARLYLE—

60. Speech on receiving Freedom of Dumfries, August 24, 1897 (*Glasgow Herald*).

CHRISTIANITY—

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No. of
Extract.

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THE CIVIL SERVICE—

72. Speech at Annual Dinner of the Civil Service, May 8, 1896 (*Times*).

CONSUMPTION—

- 73-5. Speech at opening of new buildings of Royal Victoria Hospital for Consumption, Edinburgh, October 25, 1907 (*Scotsman*).

CO-PARTNERSHIP—

76. Speech to Manchester and Salford Equitable Co-operative Society, January 19, 1895 (*Times*).
 77-80. Speech to Labour Co-partnership Association, London, December 20, 1908 (*Times*).

COPYRIGHT—

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CROMWELL—

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DARWIN—

84. Speech at celebration of the Darwin Centenary, June 23, 1909 (*Report of Proceedings by Darwin Centenary Committee*).

DECADENCE—

- 85-99. Henry Sidgwick Memorial Lecture, Newnham College, Cambridge, January 25, 1908.

"A DEFENCE OF PHILOSOPHIC DOUBT"—

- | | | |
|---------|---------|---|
| 100-4. | Chapter | I. "On the Idea of a Philosophy." |
| 105-9. | " | II. "Empirical Logic." |
| 110-11. | " | III. "Induction." |
| 112-8. | " | IV. "Historical Inference." |
| 119-25. | " | VI. "Transcendentalism." |
| 126-7. | " | VII. "Three Arguments from Popular Philosophy." |
| 128-32. | " | VIII. "The Authority of Consciousness and of Original Beliefs." |
| 133-5. | " | IX. "Psychological Idealism." |
| 136-7. | " | X. "The Test of Inconceivability." |

No. of
Extract.

- 138-43. Chapter XI. "Mr. Spencer's Proof of Realism."
144-7. " XII. "The Evolution of Belief."
148-9. Summary.
150. (Article on "Creative Evolution and Philosophic Doubt," *Hibbert Journal*, October, 1911.)

EDUCATION—

Public School.

- 151-2. Speech at Distribution of Prizes, Leys School, Cambridge, June 16, 1899 (*Times*).
153. Speech at Dinner of Allied Colonial Universities, London, July 10, 1903 (*Times*).

Technical and Scientific.

154. Speech at Dinner of Convocation of Victoria University, Manchester, October 21, 1891 (*Manchester Guardian*).
155-6. Speech at Distribution of Prizes, Municipal Technical School and Municipal School of Art, Manchester, December 19, 1892 (*Times*).
157-8. Speech to Chemical Society, London, March 27, 1895 (*Times*).
159-61. Speech at opening of new Hall of Battersea Polytechnic, February 3, 1899 (*Times*).
162-3. Speech at Dinner in aid of new scientific laboratories, King's College, London, February 14, 1900 (*Times*).
164. Speech at Distribution of Prizes, Goldsmiths' Institute, December 12, 1901 (*Times*).
165. Reply to Deputation under auspices of the British Association on State Endowment of Universities, July 15, 1904 (*Times*).
166-7. Speech at Meeting of Trustees of Carnegie Trust, February 24, 1909 (*Scotsman*).

University.

168. Speech at Meeting under auspices of Edinburgh School Board, November 2, 1886 (*Scottish News*).
169-70. Speech at Dinner of Convocation of Victoria University, Manchester, October 21, 1891 (*Manchester Guardian*).
171. Speech at Bazaar in aid of Edinburgh University Athletics Field, November 19, 1896 (*Scotsman*).
172. Speech at opening of McEwan Hall, Edinburgh University, December 3, 1897 (*Times*).
173-5. Speech to Associated Societies of Edinburgh University, October 25, 1898 (*Scotsman*).
176. Speech at Dinner of Allied Colonial Universities, London, July 10, 1903 (*Times*).
177. Speech at opening of extended buildings of Edinburgh University Union, October 19, 1906 (*Scotsman*).
178. Speech at Federal Conference on Education, London, May 30, 1907 (*Times*).
179. Speech at Luncheon in connection with Degree Ceremony, Victoria University, Manchester, July 9, 1908 (*Manchester Courier*).
180-1. Speech at Luncheon, in connection with opening of new buildings of University College, Bangor, July 14, 1911 (*Liverpool Courier*).
182. Speech at International Universities Congress, July 3, 1912 (*Morning Post*).

No. of
Extract.

Examinations.

- 183. Speech at Meeting under auspices of Edinburgh School Board, November 2, 1886 (*Scottish News*).
- 184. Essay on "The Pleasures of Reading," in *Essays and Addresses*.
- 185. Speech to Associated Societies of Edinburgh, October 25, 1898 (*Scotsman*).
- 186. Speech at Federal Conference on Education, London, May 30, 1907 (*Times*).

EMPIRE—

- 187. Speech at Bristol, February 3, 1896 (*Times*).
- 188. Speech at Luncheon at the Guildhall, London, May 17, 1906 (*Times*).
- 189. Speech at Banquet of 1900 Club to Prime Ministers of the Overseas Dominions, London, April 18, 1907 (*Times*).
- 190. Speech at Constitutional Club Luncheon to Prime Ministers of the Overseas Dominions, June 18, 1911 (*Times*).
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EUGENICS—

- 192. Speech at National Conference on the Prevention of Destitution, London, May 30, 1911 (*Report of Proceedings of Conference*).
- 193. Speech at International Congress on Eugenics, London, July 24, 1912 (*Times*).

FASHION—

- 194. Chapter on "Naturalism and Aesthetics," in *Foundations of Belief*.
- 195. Romanes Lecture (Oxford University), on "Beauty, and the Criticism of Beauty," November 24, 1910.

"THE FOUNDATIONS OF BELIEF."

- 196-8. Preliminary.
- 199-210. Introduction to cheap and enlarged edition.
- 211-19. Chapter on "Idealism".
- 220-33. Appendix, "Beliefs, Formulas, and Realities".
- 234. Summary.

GENIUS, AND THE PRODUCTION OF GENIUSES—

- 235-6. Essay on "Handel," in *Essays and Addresses*.
- 237. Chapter on "Naturalism and Aesthetics" in *Foundations of Belief*.
- 238. Henry Sidgwick Memorial Lecture (Newnham College, Cambridge) on "Decadence," January 25, 1908.

GOLF—

- 239-44. Article—"The Humours of Golf"—*Badminton Library of Sports and Pastimes*.
- 245. Speech at Chislehurst Golf Club, July 21, 1894 (*Times*).
- 246. Speech at Monifieth Golf Club, September 28, 1899 (*Scotsman*).
- 247. Speech at Sundridge Park Golf Club, April 25, 1903 (*Morning Post*).
- 248. Speech at Mid-Kent Golf Club, Gravesend, November 26, 1909 (*Times*).

HUXLEY—

- 249. Speech at Meeting of Huxley Memorial Committee, November 27, 1895 (*Times*).

No. of
Extract.

INTERNATIONAL GOOD WILL—

- 250. Speech at Bristol, February 3, 1896 (*Times*).
- 251. Speech at Lord Mayor's Day Banquet, Guildhall, London, November 9, 1903 (*Times*).
- 252. Speech in House of Commons, January 29, 1908 (*Parliamentary Debates*, Fourth Series, Vol. 183).

France—

- 253. Speech at House of Commons Dinner to French Senators and Deputies, July 22, 1903 (*Times*).
- 254. Speech at Houses of Parliament Luncheon to the French Fleet, Westminster Hall, London, August 13, 1905 (*Times*).

Germany—

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United States—

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- 257. Speech at Anglo-American Arbitration Meeting, Guildhall, London, April 28, 1911 (*Times*).
- 258. Speech at "The Pilgrims" Coronation Dinner, London, June 28, 1911 (*The Pilgrims' report*).

LITERATURE—

- 259. Speech at opening of Hertford Free Library and School of Art, August 29, 1889 (*Hertfordshire Mercury*).
- 260. Speech to Royal Literary Fund, April 26, 1893 (*Times*).
- 261. Speech to Sir Walter Scott Club, Edinburgh, December 20, 1897 (*Scotsman*).
- 262. Speech at Royal National Eisteddfod of Wales, London, June 16, 1909 (*Liverpool Daily Post*).
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MATTER—

- 264-73. Presidential Address, British Association for the Advancement of Science, August 17, 1904, reprinted in *Essays and Addresses*.

MEDICAL—

- 274. Speech at Dinner in aid of Royal Medical Benevolent College, Epsom, May 12, 1895 (*Times*).
- 275. Speech to Guy's Hospital Medical School, July 13, 1898 (*Times*).
- 276-7. Speech to Medical Graduates' College and Polyclinic, London, May 21, 1901 (*Times*).

MUSIC—

- 278-80. Chapter on "Naturalism and Aesthetics," in *Foundations of Belief*.
- 281. Speech at celebration of Dr. Joachim's Diamond Jubilee, May 16, 1904 (*Standard*).
- 282. Romanes Lecture (Oxford University) on "Beauty, and the Criticism of Beauty," November 24, 1909.
- 283. Speech to Royal National Eisteddfod of Wales, London, June 16, 1909 (*Liverpool Daily Post*).
- 284. Speech to International Musical Congress, London, May 30, 1911 (*Daily Telegraph*).
- 285-97. Essay on "Handel," in *Essays and Addresses*.

No. of
Extract.

NATURALISM—

- | | | |
|----------|---|---------------------------------|
| 298-301. | Chapter on "The Philosophy of Ethics" in <i>Philosophic Doubt</i> . | |
| 302-11. | " " "Naturalism and Ethics" | } <i>Foundations of Belief.</i> |
| 312-4. | " " "Naturalism and Aesthetics" | |
| 315-9. | " " "Naturalism and Reason" | |
| 230-3. | Summary and Conclusion of Part I. | |
| 324-33. | Chapter on "The Philosophical Basis of Naturalism" | |
| 334-43. | " " "Philosophy and Rationalism" | } |
| 344-5. | " " "Rationalist Orthodoxy" | |
| 346. | " " "Causes of Experience" | |

THE NINETEENTH CENTURY—

- 347-51. Inaugural Address, Cambridge University Local Lectures, August 2, 1900, reprinted in *Essays and Addresses*.

NOVELS—

352. Speech to Sir Walter Scott Club, Edinburgh, December 20, 1897 (*Scotsman*).

POLAR EXPLORATION—

353. Speech at Lecture by Sir Ernest Shackleton, North Berwick, September 22, 1910 (*Scotsman*).

POLITICAL ECONOMY—

- 354-9. Essay on "Politics and Political Economy," in *Essays and Addresses*.
 360. Speech to British Economic Association, London, June 27, 1894 (*Times*).
 361-2. Speech to Royal Economic Society, London, July 14, 1904 (*Times*).
 363-4. Speech to London School of Economics and Political Science, London, February 24, 1906 (*Times*).

POSITIVISM—

- 365-77. Address, "The Religion of Humanity," delivered at the Church Congress, Manchester, October, 1888, reprinted in *Essays and Addresses*.

THE PRESS—

- 378-9. Speech to Newspaper Press Fund, May 15, 1892 (*Morning Post*).
 380. Speech to Newspaper Society, May 8, 1895 (*Newspaper Society's report*).
 381. Speech at Dinner of Members of the Parliamentary Press Gallery, April 10, 1908 (*Times*).
 382. Speech at Imperial Press Conference, June 9, 1909 (*Times*).

PROGRESS—

- 383-95. Lord Rector's Address, "A Fragment on Progress," to Glasgow University, November 26, 1891, reprinted in *Essays and Addresses*.
 396. Speech at celebration of Quincentenary of St. Andrew's University, September 14, 1911 (*Times*).

PSYCHICAL RESEARCH—

- 397-9. Presidential Address to Society for Psychical Research, January 26, 1894.

PUBLIC-SPEAKING—

- 400-1. Speech to Edinburgh University Philomathic Society, October 25, 1907 (*Scotsman*).

No. of
Extract.

READING—

402. Speech at Meeting under auspices of Edinburgh School Board, November 2, 1886 (*Scotsman*).
403. Speech at opening of Hertford Free Library and School of Art, August 29, 1899 (*Hertfordshire Mercury*).
404-14. Essay on "The Pleasures of Reading," in *Essays and Addresses*.

SCIENCE ; AND SCIENCE AND THEOLOGY—

- 415-26. Chapters—"Science as a Logical System"; "The Evolution of Belief"; "Summary"; "Practical Results"; "Note on the Discrepancy between Science and Religion," in *A Defence of Philosophic Doubt*.
427-66. Chapters in Part IV. ("Suggestions towards a Provisional Philosophy") of *Foundations of Belief*, entitled "The Groundwork"; "Ultimate Scientific Ideas"; "Science and Theology"; "Suggestions towards a Provisional Unification".
467. Speech to Scottish Home Missions and Church Extension, Glasgow, November 4, 1901 (*Glasgow Herald*).
468-9. Speech to Pan-Anglican Congress, London, June 22, 1908 (*Times*).

SCOTLAND—

470. Speech to Scottish Corporation, London, November 30, 1886.
471. Speech on receiving Freedom of Glasgow, January 14, 1896 (*Times*).
472. Speech to Scottish Home Missions and Church Extension, Glasgow, November 4, 1901 (*Glasgow Herald*).
473. Speech at Farewell Dinner to Professor Butcher on his resignation of the Greek Chair, Edinburgh University, and his departure from Edinburgh, January 20, 1904 (*Scotsman*).
474. Speech on receiving Freedom of Edinburgh, October 19, 1905 (*Scotsman*).

SIR WALTER SCOTT—

475. Speech at unveiling of Scott Memorial, Westminster Abbey, May 21, 1897 (*Times*).
476. Speech on receiving Freedom of Dumfries, August 24, 1897 (*Glasgow Herald*).
477. Speech to Sir Walter Scott Club, Edinburgh, December 20, 1897 (*Scotsman*).

ROBERT LOUIS STEVENSON—

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TRIBUTES—

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481. To His Majesty King Edward the Seventh, May 11, 1910 (*Parliamentary Debates*, Fifth Series, Vol. 17).
482. To The Right Hon. W. E. Gladstone, May 20, 1898 (*Parliamentary Debates*, Fourth Series, Vol. 58).
483-4. To The Marquis of Salisbury, November 9, 1903 (Lord Mayor's Day Banquet) (*Times*), and May 17, 1904 (*Parliamentary Debates*, Fourth Series, Vol. 135).

N^o. of
Extract.

485. To The Duke of Devonshire, March 24, 1908 (*Parliamentary Debates*, Fourth Series, Vol. 186).

MISCELLANEOUS—

Athletics—

486. Speech at Distribution of Prizes, Association of Conservative Clubs, July 11, 1896 (*Times*).
487. Speech at opening of Bazaar in aid of Edinburgh University Athletics Field, November 19, 1896 (*Scotsman*).
488. Speech to Associated Societies of Edinburgh University, October 25, 1898 (*Scotsman*).

Cycling—

489. Speech to National Cyclists' Union, March 24, 1899 (*Times*).

Experts—

490. Speech at National Conference on the Prevention of Destitution, London, May 30, 1911 (*Report of Proceedings of Conference*).

Matrimony—

491. Speech at Dinner of City of London Tradesmen's Club, December 14, 1906 (*Daily Telegraph*).

Nationality—

- 492-4. Speech to Honourable Society of Cymmrodorion, October 21, 1909 (*Times*).

Picture Galleries—

495. Speech at Meeting under auspices of Edinburgh School Board, November 2, 1886 (*Scottish News*).
496. Speech at opening of Hertford Free Library and School of Art, August 29, 1899 (*Hertfordshire Mercury*).

Homes for Youths in Industrial Centres—

497. Speech at Meeting in aid of Homes for Working Boys in London, July 5, 1894 (*Times*).

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